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EARLY CHILDHOOD

Children of the Home.

EARLY CHILDHOOD

BY

MARGARET McMILLAN.

WITH FIVE ILLUSTRATIONS.

LONDON:
SWAN SONNENSCHEIN & Co., LIMITED
PATERNOSTER SQUARE
1900

DEDICATION.

TO

MR. MONTAGU BLATCHFORD, MR. ROBERT BLATCHFORD,

AND MR. ALEXANDER THOMPSON

THIS LITTLE BOOK IS INSCRIBED WITH MUCH ESTEEM.

PREFACE.

EVERYONE admits that we are living in an age of great social uneasiness.

From the dark places of cities come ominous sounds of Revolt—the Revolt of the disinherited, the despairing. In higher grades of Society revolt is more decorous, less noisy, and better organized. But it is still Revolt, the intelligent and order-loving artizan combines with his comrades—pays his Union money and regards the Trade-Union itself much as the patriot regards his country. It is something to defend, to fight for, and to trust in. A large section of literary middle-class people sympathize with the army of revolt. Opposite these is the hostile camp. Masters combined, surrounded by free-labour people, and sympathized with by philanthropists who are pained to think there are certain "dangerous classes" among the poor who cannot be reached by soup and blankets.

"No," retorts a voice from the opposite side, "there are no dangerous classes among the poor. For the poor have to work hard and to fare scantily, and where the water runs fast there is little fear that it carries disease and death. *You* are the dangerous classes. You are the congested centres of Society through which the human life-blood creeps sluggishly. *You* sleep in sheltered places—where never a wind of anguish reaches you. *You* are dangerous.

Within the nation of troubled men and women there is another—of untroubled little children. Go into a public park on any fine morning and you may see the nursling of some wealthy home eyeing the child of poverty who gambols near him on the grass. Ah! If there was no stately nurse in attendance on the former how quickly those two little people would strike up an acquaintance and toddle off to play together.

They do not know as yet what a gulf yawns between them. But they feel that they have much in common, and that it would be delightful to be playfellows.

As yet neither has been baked—to use Carlyle's expression—into a shape which one can reasonably believe to be dangerous. The baby-eyes are still bright and pure as sunny water. The two children might toddle off together, giving each other a "butterfly kiss" with cool baby lips. How comes it that one or other is baked at last into a "dangerous" person? Why should either ever become dangerous? How do they drift so far apart that one cannot look at last into the eyes of the other without envy or distrust? There will always be "dangerous" classes until some such questions are asked, not only in slums and dark garrets, but in luxurious nurseries.

This little book deals with this question, for it deals with primary education. In one or two places—as in the Chapter on Moral Training—some allusion is made to older children. But the treatment of all questions relating to the education of older children is left to other pens. At the age of twelve or fourteen there may be, and must be indeed, a parting of the way. For then the child must begin to receive—not Technical training—but such instruction as will probably help him later when he makes choice of a career or trade. In this little volume the teaching of Science is not touched upon. Art teaching is dealt with only in so far as it concerns the efforts at self-expressions, and movements of young children. The book deals only with questions that concern the opening years of life—the years when impressions are received, when impulses are strengthened or curbed, when the sub-soil of the nature is made rich or barren, when "dangerous" elements strike deep root, or perish in obscurity.

In short, it deals simply and only with questions of *human* education, the education that must precede every kind of secondary, technical, and professional education whatsoever.

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CHAPTER I.

EDUCATION IN THE PRIMARY SCHOOL.

> "The strong affection for progeny becomes in the hands of nature the agent of a double culture, serving at once to fashion parent and child into the desired form. And beautiful it is to see how the most powerful instinct is made the means of holding men under a discipline to which nothing else perhaps could make them submit."—*Herbert Spencer.*

WE are to-day in the midst of a great revival of education. Conferences of teachers, committees appointed for special investigation meet daily. Even in the matter of primary education, how many counsellors and helpers have we all eager to do something in the interest of the small John Smith whose formal education is to end at the age of twelve! Think of the Council of Education, the School Boards, the National Union of Teachers, the Society for the Scientific Study of Childhood, the State Children's Aid Association, etc. Consider the rain of books, pamphlets, reports, notes, observations, illustrations which are poured daily on the head of any School Board member who takes

any notice of one. Yet in the midst of all this business and haste the persons most closely concerned in the education of the little John Smiths of England—to wit, John's own father and mother—are strangely indifferent, indeed apathetic.

At a recent School Board election only a small percentage of the London populace even took the trouble to vote. In the provinces there is a like carelessness on the question of the election of persons to offices of educational responsibility. The chapel-goer, to be sure, is anxious to be represented by a Nonconformist; and the staunch churchman wants to see the vicar on the Board, feeling sure that a university education and church principles are things to "make a note on." But the questions as to whether the churchman has studied child life as well as Greek, or whether the Nonconformist knows something, not merely about theology, but about the growing brain are never asked, nor even suggested at any gathering of electing ratepayers. The average parent is still of opinion that the education of his child is a thing that concerns other people rather than himself, and that those people who undertake the direction of it are qualified for the task by Greek and Latin, or even by mere dissent.

Not but that the average parent has some strong

convictions on the subject. Perhaps the strongest of these is concerned with the duration of his child's school life. He feels that it ought not to be prolonged beyond the age of thirteen. Of the millions of little ones attending our elementary schools only a small proportion go forward to the secondary schools. Few, very few, ever pass into the higher grade, and spend a year or two in an organised elementary science school. In Bradford, for example, where the first higher grade school in England was opened, only 626 children out of 26,992 attending the ordinary primary schools in 1894, have prolonged their school days beyond the age of thirteen. Fifty years ago education was not so diffused as it now is in Scotland. Yet, as a recent writer—Mr. Graham Balfour—has remarked, it is probable that in proportion to the population there is to-day a smaller number of learned persons in Scotland than formerly. Knowledge is increased, but the *hunger* for it is diminished. If we turn to other countries we find the same suggestive fact staring us in the face. In 1832, of all the children in the primary schools of Prussia, 9.6 per cent passed on to the secondary. In 1864, notwithstanding the spread of primary education, only 8.6 continued their education on leaving the primary school. It is not the parent of the Lancashire half-timer alone who says of

his child's school days continually, "Would they were done!"

Millions of well meaning and intelligent fathers and mothers are eager to withdraw their boys and girls from school just at the age when they might begin to profit largely from instruction.

The hunger for knowledge is often stilled then in the elementary class-room.

"Never mind," cries the moralist, "so long as the love of righteousness is awakened there!"

Yes. But is the love of righteousness awakened very strongly in the ordinary class-room? No one can claim that it is. Thirty years ago people indulged brave hopes! "We are opening a great many new schools," they cried. "Soon, an enlightened generation of young people will troop forth from them, and fill the earth with joy and beauty." This hope was beautiful, but it was quite vain. According to Mr. Wm. Douglas Morrison, the returns of the English Judicial Statistics for 1893, as far as they are of any value at all, show that the number of juvenile offenders has increased rather than diminished during the last thirty years. The number of charitable institutions has increased. The desire to help and save the young grows strong and stronger. But the *power* to save lingers! Though the juvenile po-

pulation of the English prisons has decreased, the results do not show that the number of young criminals has fallen. Alas! And Lancashire, which shows the lowest percentage of pauperism in England, has the highest ratio of juvenile crime. The young people learn fast, and pass many examinations. But this does not mean that they abhor evil. They use their abilities and knowledge in disastrous ways. The criminal adorns his room with an awful kind of art, and writes powerful prose. He is a splendid draughtsman, and he has a literary style which is bound to attract.

"At least our children are strong," cries the optimist. But this too is a delusion. Axel-Key found that one-third of all the children he examined in Denmark, Sweden, and Belgium *suffered from chronic diseases*. Thirteen per cent were pallid. Dr. Crichton Brown found that 52 per cent of the girls in the London Schools and 40 per cent of the boys suffered from headache. Then the "nervous" child is to be found everywhere. Dr. Francis Warner has described him. "He is apt to complain of headaches, is difficult to get off to sleep, talking at nights and grinding his teeth, while in the morning he is tired and not ready for breakfast.

"He is often bright enough mentally, and affectionate

in disposition, but apt to be irritable and passionate and too emotional. There are children who are delicate without having any disease, who are never laid up with any definite illness; but they are not strong, cannot walk far without getting tired. On some days they are too tired to do anything, and must rest; capricious in appetite, yet sometimes ravenous, but losing weight... In the nerve signs we see indications of weakness and over spontaneity."

This child's name is Legion. Here is a girl who flushes suddenly and trembles as you look at her. What is the matter? Is she in terrible distress? Yes. And why? She cannot do her sum! Here is a boy who is suddenly overwhelmed with shame and confusion and resorts to lying. Why? Because he has a brutal master and feels he will be punished? Not at all. The master is as patient as Job and has never shown him anything but kindness. The child is not afraid of him—but of everything. Every trifle agitates his unstable nervous system. And so many grown-up persons are like him. From the book of a modern philosophical doctor a list of diseases common to-day may be given —diseases which all mean weakness—weakness betrayed *in fear*.

Agoraphobia (fear of open places), claustrophobia (fear of closed places), monophobia (fear of being alone),

anthrophobia (fear of heights), bataphobia (fear of pins), zoophobia (fear of animals, such as mice, spiders etc.—a disease common to women), pathophobia (fear of getting diseases), photophobia (fear of fear itself), and pantaphobia (fear of everything).

The causes of all this instability—moral, mental and physical—are not to be laid at the door of the school. They are found in the subtle and rapid changes which have taken place in our social life.

But if the primary teacher cannot be blamed for the growing instability of instructed persons, he must acknowledge that he has new responsibilities. He cannot remove the new and disturbing factors in life. The task is a higher one than that of removal. He has to master the new conditions and to harmonise them. He must be more than his predecessor was. More than a pedagogue, more than a literary man, more than an instructor. He must be a physiologist *par excellence*.

But as yet the physiologist plays no very prominent part in the annals of pedagogy. (To be sure a Board here and there has engaged a doctor. But the doctor's main function is to cure the children who are ill, not to study the children who are well or fairly well.) And the average parent, doubtful as to the value of formal and literary education, takes

his children away from school as soon as possible. After all the average parent is right in a sense. Children are educated mainly through impressions and movements. In the old days (of which he preserves the half-comprehended tradition) these were amply supplied in the learning of trades and crafts. But now the line of division between thinker and manual labourer is sharp. The latter as well as the former has opportunity for thought, and perhaps thinks more than his father did, but his daily task is one from which he draws few impressions, and which requires of him, not varied and new, but only montonous and familiar movements.

CHAPTER II.

IMPRESSIONS.

IMPRESSIONS begin with life. Capacity for receiving impressions may be said to constitute life, for the living thing is distinguished from the non-living mainly through its power of response. In his pre-natal life the child is sensitive. What his mother hears, feels, enjoys or suffers affects him powerfully. And at birth he is distinguished from lower animals by the extraordinary susceptibility of the richly innervated skin, the nerve endings in which are, of course, points of departure for innumerable nerve currents. The first contacts are therefore terrible. Round the sensitive body the air (a new strange element) sweeps mercilessly—assailing every part of the surface and pouring its torrents into the delicate tissues of the lungs. Light smites the blind eyes. In short, a tumult of sudden and painful impressions thrill through the tender organism, and it is not wonderful that, in spite of the many beneficent provisions attending birth, a large number of infants die on their first day. But the child who survives begins almost

at once to have compensatory experiences. Thus the anguish of contact with a new and chill element is followed by delightful sensations of warmth in the bath or cradle, of freshness and well-being in the fresh open air. The sudden smiting of the blind eyes does not blind after all (save, of course, in cases where the nurse is careless or the organ of vision hopelessly imperfect or diseased). The terrible visitant is a friend—the most beautiful friend of all – light! Within the child there is something that responds marvellously to its influence. At an early age "the appetite for light" is awakened, and the little one will laugh and crow when brought out into the sunshine. These keener joys as well as pains depend, of course, on *susceptibility*. And this susceptibility is most strikingly present at first *in the skin*. Lower animals have not a skin—they have *a hide*. They are hide-bound. But the human infant organism, open by myriad doors of access to the outer world, is capable of receiving ineffable and terrible baptisms. And every tradition of baptism, whether Pagan or Christian, whether of Thetis plunging the infant Achilles in the water, of Demeter laying her nursling in the red strength of the fire, or of the apostles and messiahs going down into the water ere they began their ministry, bears evidence of a consciousness in man that in himself

the animal is unbound and laid open to the rain of new influences.

Everything ensures the permanence of the early impressions. They are received, not through the finer and as yet undifferentiated parts of the nervous system, but through the sympathetic system, with its wide channels, its central ganglions. During the first months, too, the arterial system is large in proportion to the rest of the body. The living cells, while building up the pabulum or food-stuffs into their own substance, ever respond to the influences that play on them like breezes on a lake, but they respond in a peculiarly effective way during the earlier months and years. Occasionally we are reminded of the permanent character of these records by dim recollections and emotions awakened in us we know not how or why. The perfume of a flower, the tone of a voice, the sight of a face or of a scene which we cannot remember to have visited fills us with vague delight or tenderness. The origin of these mysterious emotions lies deep-rooted in the sub-conscious life—the life we lived when as feeble recipients we accepted the impressions which flowed in on us from every side and left their traces in us for ever.

Very early the child begins more or less consciously to exercise the basal sense—the sense of touch. On

waking from sleep he puts out his tiny hands to grasp something, or turns his head on the firm, soft pillow. He *touches* rather than looks, at first, (for his hands and fingers perform a great many movements long before he learns to turn his eye-balls in various directions or follow the passage even of a light,) and through touching many things he begins his education. If he is the nursling of wealthy parents, it is possible that his first exercises are rather restricted. He touches silk, ivory, muslin and fine linen. That is all, and that is not much. But the child of the cottager is often better off, for his mother gives him a great variety of objects to keep him quiet. The ridiculous command, "Do not touch," cannot be imposed on him while he is screaming in his cradle or protesting in his dinner-chair; and so all manner of things—reels, rings, boxes, tins—that is to say, a variety of surfaces is offered to him, to his great delight and advantage. And lest he should not get the full benefit of such privileges he carries everything to his mouth, where the sense of touch is very keen.

Other doors of sense are ajar. Blind at first and deaf (though capable of suffering through the organ of vision and hearing from the first), the young child begins to hear and to see. At the end of the first week a sudden light brought near his face will cause

him to close his eyes. Before the end of the second week he trembles at any loud noise, and within the first month perceives many sounds. He hears then and sees. But how does he hear and see? Not like the grown-up person, certainly, or even like the child in the infant school. He differs from them notably in this, that he *distinguishes* little or not at all. The growing power to distinguish constitutes progress, and progress may be immense. For example, the experienced musician can discern intervals of $\frac{1}{128}$th of a tone. The infant cannot at first distinguish even his mother's voice! The painter sees innumerable tones and demi-tones of colour to which the untrained man is blind. The infant cannot even discern red from yellow, much less grey from blue, or blue from green! He lies like a larva, choosing nothing, refusing nothing. He absorbs impressions even while he is asleep, for the nerve cells are never quite irresponsive, never rigid, save in death. And from this dim sea of sub-conscious life his feeble and wavering consciousness at last arises.

How much he forgets! At the age of thirty he will not recall the first year of life and its experiences at all. Yet *in him* how much is remembered! What continuous living registration is taking place in the secret and hidden parts! The finer tissues of the brain

are like a parchment on which the writing grows dim, but from which no letter can ever be erased!

Here is an extract from Mr. Louis Waldstein's work, "The Sub-Conscious." The life of Miss Keller offers many a forcible illustration of the lasting effects of early experience, and she has helped to throw much light on this obscure subject:

"The serious illness that threatened the life of Miss Helen Keller left her, a child of nineteen months old, with only those organs of sense unimpaired which we are accustomed to regard as the lower senses of man—those of touch, of taste, and of smell. Her high degree of intelligence to-day must have been entirely formed by impressions received through them, and by those that date back into babyhood . . . She has a centre for musical impressions through the sensations of touch, just as we have one for the same order of impressions, with the important difference that ours is connected with the ear, while Helen Keller's is connected with the nerve-endings in the skin and muscles. Were it possible to recall true aural impressions in her case through the medium of touch, it would not only prove the force of sub-conscious impressions, but would suggest the interesting question whether in such cases a connection is not established between the one centre, that of hearing, and the

other, that of touch, and thus create a new kind of mental process.

"With this purpose in view, I wrote to Mrs. Keller, who kindly sent me the titles of two plantation songs, which were commonly sung in her home in Alabama when Helen was a baby, but are not now generally sung—which I could procure only in manuscript from the South. These tunes I had played upon the piano while she stood beside the instrument with her fingers resting upon its wooden frame. Care was taken, of course, that she should know nothing of my intentions, and that she should be taken unawares. The effect was striking. The young woman became greatly excited, laughed and clapped her hands after the first few bars of 'Way Down in the Meadow a-Mowing of the Hay.' 'Father carrying baby up and down, swinging her on his knee. Black Crow! Black Crow!' she exclaimed repeatedly. On hearing the second song, 'The Ten Foolish Virgins,' the same effect was produced. It was evident to all those who were present that the young lady was carried back to her early surroundings, even into the time when she was carried about by her father; but we could not find a meaning for the words 'Black Crow.' I considered it prudent not to question her, but applied by letter to her mother, who was kind enough to send an early reply.

Mrs. Keller said: 'The "Black Crow" is her father's standard song, which he sings to all his children as soon as they can sit on his knee. It was a sovereign remedy for putting them in good humour, and was sung to Helen hundreds of times. It is possible that she remembers it from its being sung to the two younger children as well as to herself. The other two I am convinced she has no association with unless she can remember them as she heard them before her illness'—that is to say, before she was nineteen months old."

Of course, Helen Keller could not remember in the sense of recalling all that she experienced when she was six, ten, or even eighteen months old. What had happened? Probably this. Certain nerve cells allied to the organs of vision and hearing had been stimulated in infancy and responded to this stimulus in what may be called their own language. Later, the organs corresponding to them were closed and darkened. The child became deaf and blind—the nerve cells corresponding to the senses of sight and hearing were no more exercised or developed. Yet the record of their short period of activity was not lost. It was preserved; and it entered, doubtless, as a factor in the subsequent mental development of this wonderful and charming girl.

Poverty of experience or impressions—whether from

the closure of any gate or sense, or through any other cause—induces a permanent and irremediable weakness in the mental life of the most highly endowed. If Mozart had been born stone deaf, we should never have heard of him as a musician. If Raphael had been brought up in the dark, his natural powers as a painter would not have unfolded. Just as a child grows in sleep, so for months and even years he is educated in ignorance—in unconsciousness. There comes a time at last when the unconscious life becomes conscious—sometimes with apparent suddenness. One day a vivid impression is received. Then from the shadowy background of forgetfulness a clear picture starts forth which is henceforth unforgettable. "Much of what follows fades," writes Olive Schreiner, "but the colours of those baby pictures are permanent."

Nearly every grown-up person sees some such bright-tinted picture at the horizon of his conscious life. On some long-gone-by day while he was a toddling little child, or perhaps still in his nurse's arms, he gazed on something—a sunset, a snow-storm, a toy, an organ-grinder, a horse fallen in the street. He gazes at one or other of these, and the deep impression made on him awakens him into a deeper life.

Henceforward the world is a new place. He not

only remembers the toy, or the sunset all his life long, but these become for him a new starting-point. He feels a new emotion henceforth when he touches and examines the objects which attract him. Here, for instance, is a little fellow who, seated on the carpet, is taking a clock to pieces. Every new success in the destructive process of taking the works to pieces gives him great joy. The bright colour of the case charms him. He looks, touches, examines, is absorbed. Now and then you may see the diaphragm fall and the breathing deepen—signs of deep satisfaction. The face is calm, satisfied, and full of wonder. Let us hope that he will not be punished for adopting the best educational methods. For who can doubt that this child is being educated? His powers are literally being drawn out by the new contacts, colours, mechanism, movements *and the emotion produced by these.*

No formal lesson can take the place of such involuntary culture. The child feels *emotion*—a real stirring of the youthful heart. He is not called upon to reason about what he feels—he is allowed to feel. The process of reasoning is going forward, up-borne by emotion. But emotion is the well-spring. Without it the world is dead to the child. Nothing would summon him. And now he is summoned!

Sweeter than anything in life, perhaps, is that first

whispering, that first wonderful message, "Here is a beautiful book thy Father has written for thee." It comes to almost every child. Yet not every child, not many children are allowed to listen in peace. Thirty years ago Seguin wrote: "There are comparatively few who, allowed to touch the things around them, emerge from this baptism of emotion poets, painters, savants—in a word, veritable interpreters of Mother Nature, having learned one of her languages." And this is true, even now, in the day of kindergartens!

"But surely a young child cannot choose for himself or know what is best," the mother may object. No; he does not select; he does not reason. He only *feels*. But *feeling* is, after all, the great guide whom we have had to trust in many an advance. The little one who is allowed to look, listen, and touch freely does not distinguish nor choose much. But just as a child who, rebelling against sleep up to the last moment, is yet claimed by sleep at last, so a child, free and occupied, choosing nothing, is yet himself chosen as it were by the things which he chooses. *They* find *him*. They claim him. Little Mozart sits at the old spinet in his night-dress. Little Benjamin Watt busies himself with his pencils and brushes. Irvine, the child naturalist, cannot leave the woods

and the life in them even at midnight. The little mechanic too, is discovered and claimed. And each child loves that language of Nature which is *his own*, and which one day he will interpret.

No healthy child is, however, content with one order of impressions. However early his bent may declare itself, he is no specialist. He sees around him a wonderful life which he wants to share. He looks at the big people around him with their big churches, big houses, big roads, and railways and furniture. Everything is on a vast scale—too vast.

But the child, in order to receive vivid impressions adopts an ingenious method. He creates a small world around him, imitating what he sees, but reproducing everything on a scale that suits himself. He makes toys.

At least—he ought to make toys. He wants to make them; but he may of course be thwarted. If his parents are well-to-do they may *buy* toys for him. And what foolish toys! They were made probably in Germany—not by children who want to play, but by grown-up people who want to sell. Surely if anyone, even a child, has a life of his own, he ought to embody that life in his work, and begin to do this as early as possible.

"No toys! Then no poets, no thinkers, no invent-

ors, no great craftsmen!" That is the pronouncement of one of the greatest teachers of our century.

And the story of the childhood of nearly any and every great inventor, or craftsman, or poet justifies him. For they all made toys, played with kettles or engines which they made themselves. The average child would make toys if encouraged to do so, and would reveal in so doing his own nature, and the spirit of his own race and country.

Here, for example, is a little English boy of six. With some little help from his father he has made a rude little locomotive and carriages. For weeks he has examined trains with real interest. He knows a great deal about them now. He grooves wood in order to make a railway, and fits his carriages (made out of match-boxes) with little windows.

He makes other toys besides! Chairs, tables, ships, hammers—all of wood. Roughly made as they are they have the English hall-mark on them. No one could say on looking at them, "They were made in Germany", for they were obviously made in England, and by a child who has an Englishman's love of construction and the Englishman's love for *utility*. This little boy has a sister who plays with dolls. He does not despise the dolls, neither does she ignore his wheels and engines. They

play *together*. The dolls lead an eventful life. They travel by land and sea, intermarry, preach, hold concerts, quarrel, die, have illnesses—in short, see a great deal of life. The children live through them. Through them they have many experiences, leading a free, rapid, and various life. It is not strange that they are affectionate and intelligent—though probably not more gifted naturally than ordinary children. They play a great deal. And they are using their time well. They are gathering materials for the higher mental life which is to follow, just as in the sub-conscious life of infancy they once gathered materials for the conscious life they are enjoying now. Soon, of course, they will outgrow their toys, just as nations outgrow their idols. They will become iconoclasts perhaps, breaking the little engines and carriages to which they owe their first conceptions of physical Science—breaking or neglecting the dolls to whom they owe so many social instincts, so many dawning graces of mind and character. Like other idol-breakers they know not what they owe to the image they break. They do not know that through them their sympathies have been broadened, their perceptions enlarged, their consciousness widened. Yet through these poor headless and broken things all this has become possible. It is not through loving

nothing, and worshipping nothing that children and larger children grow. It is by loving *what they can —what they have*—a piece of wood or stone if there is nothing better. Later they will let these go. It would be a crime indeed to love them too long. "Little children keep yourselves from idols," said the gentle St John. But the people he addressed were no longer children save in simplicity of heart.

The child depends on his toys. He depends on his environment. He depends on these because through them the sub-conscious life is nourished. And the important things for him are not the things which concern the conscious life, but the sub-conscious. The consciousness of any one person is small at any given moment. The word we speak, the thought we have just had is not us. It is a ripple on the top of us. Below is the self—the dark sea. The child is less conscious than we. As has been already remarked many things escape his notice, but *he* does not escape them. Impressions flow in on him and form his sub-consciousness. And from this sub-conscious life he draws the materials of his thoughts.

Therefore the *tone* of the teacher is more to him than her words. The colours of the pictures and walls affect him more than the subjects of the pictures: the unconscious looks, and movements, and manners

of all the little persons around take hold of him through his plastic body, and form him. That is why it is important above all for the *little* child that the school should be beautiful, or at least that the effect of the class-room and its furnishings should be harmonious. Far more important that the teacher should be gentle and cultured, than that she should be able to teach him how to work sums or to spell words. Of course number is important—and so is spelling. But formal teaching does not convey any wakening thrill. A child may learn the date of the Norman conquest, or the multiplication table, but such things do not sink into the mind (as does the colour, and the voices, and the light, and the love around one) and tincture it for ever. Formal teaching is a very trivial matter in comparison with the vital education given through impressions.

For example, there is in this city (Bradford) a family of children whose parents belong to the poorest class. In spite of many privations, these children are conspicuous for their gentle and joyous character. Their home is in a back-to-back house in one of the poorest districts of the city. The "back" in which they live, however, faces south and the rooms are sunny. On the walls there are some pretty coloured pictures. The rooms contain nothing sordid or ugly.

The curtains, table-cover and carpet are all faded, but, like many faded things, these are beautiful and harmonious in colour. The children go to a school whose mistress understands the importance of good subconscious impressions. Bright and *pure* colours salute them from the walls. No examples of crude greens or vulgar magentas are slipped among the paper, straw, etc., with which they work. And teacher and mother alike possess that excellent thing in woman—a sweet voice. The immediate result of this happy combination of circumstances is not that the little ones have an appreciation of art, but that they display remarkable animation and joy in life. Other results will follow later. Having felt and loved good impressions, they will by-and-by reject evil ones. At present they do not select or reject—they accept what is provided for them.

Here is another family, who have been brought up in the front of that same house. They go to a poor school in the neighbourhood, where the walls are covered with pictures—any kind of pictures. The teacher has spoiled her voice by straining and shouting. The children show considerable intelligence, but there is a strange lack of life and spontaneity in them. They are depressed, and their depression is obvious even in their noisiest moments. They do not complain;

but all is not well with them. They pass their standards creditably as do the children in the back rooms. But how different is their education! Soon they will leave school. They will forget a great deal that they have learned out of books, but they will not be able to forget their early impressions. These will remain. Even when health and strength fail they will not fade away. They will remain—when extreme age comes they will be ALL that remains of the past!

Let it be stated once for all, that during the first years the child is getting materials together. Every day he amasses a certain amount of treasure, of dross, or of mingled ore, and this, with, of course, his hereditary tendencies, is the capital with which he starts his conscious life. Is a man brave, strong, refined, sympathetic? These fine qualities cannot be evolved from nothing. The man has something *good* to draw on in the sub-consciousness. Is he an evil person? In that case—in any case—there has been accumulation. Nothing comes out of Nothing. As a great Teacher puts it, "A good man out of the good treasure of his heart bringeth forth good things, and an evil man out of the evil treasure of his heart bringeth forth evil things."

The quality of the treasure, and even its amount, is determined largely by the mother and the Infant Teacher.

CHAPTER III.

MOVEMENTS.

ALL living creatures move.

Take up the tiny hand of an infant and you will see that it trembles. Not only the fingers, but the whole body moves tremulously. These feeble movements effect nothing at all. And yet they tell us that the child lives—that the brain is active—that nerve-currents are already passing from the Royal Organ to the extremities.

But now the baby is twelve months old and all is changed. He tries to walk, to grasp, to rattle things together. He points, pulls, strikes, salutes, caresses—he tries to speak, that is to say makes rapid movements with the vocal organs. And these movements are directed more or less by *will*. They appear to have nothing at all to do with the helpless movements peculiar to an earlier stage of life.

And yet the child has not entirely ceased to be an infant. He has little control of the various parts of his body. Any stimulation of the nervous system causes him to perform large movements. He laughs,

cries, and rejoices *with his whole body,* every action also tends to be general—for example, on beginning to walk he uses not two limbs, but four. "Why not train the feet as you are giving bi-manual training?" asked a gentleman the other day. The answer is, It is not necessary; children who receive bi-manual training are already far advanced, not indeed as artists, but as human beings. In grasping things he often uses, not one hand, but two; and not hands alone, but arms as well. All this proves that the nervous system is not yet highly developed.

But now he is five years old. What progress he has made! He walks on two feet, and can speak plainly. He often stretches out his arm when he wants an object, and grasps it with one hand.

It is at this stage of his existence that the State takes possession of him. And in nothing is the school treatment of the child so revolutionary as in the matter of movements. Up to the age of five little John Smith has run about nimbly, but now he has to keep his feet still, to give his lower limbs a most unwelcome rest!

On the other hand, a great deal of new work falls to his small fingers. Perhaps he has to prick holes with pins in paper. But even if pricking has gone out he may have to sew, to write in small books, to

draw from point to point. John, being adaptive, soon learns to make the new movements. With pen or pencil firmly gripped in his little fist he makes wonderful progress—writes, draws to the admiration of all. Yet this tight gripping itself tells us that John's control is not that of a grown-up person. Ask him to write on the blackboard and you will see that he moves his body and limbs.

Nay, when he writes a difficult letter he will often put out his tongue and make it follow the movements of the pen. Is John ready for fine finger work? And how much control over the fingers does he possess at the age of five?

It is well to settle this question before going any further. Anatomically, exercise leads to organization, *starting from* the centre first developed. But it is *not* a matter of indifference how or where organization begins. Irregularities in that slow movement called growth lead to the production of monstrosities. Irregularities in the more rapid kind of movement called action lead to disorders and enfeeblement of the nervous system. So that it is necessary to consider what the sequence of natural growth is, and to follow it. In what order do the various parts of the body pass under the control of the will? What degree of control has a child of five over the varions parts of the hand

and arm—and in what order does he attain it? Only on learning this can we form a trustworthy opinion as to the kind of movements appropriate to him.

Dr. Hancock of Massachusetts has made certain tests which throw some light on this subject—in so far, at least, as the arm and hand are concerned. Those tests were applied to about one hundred and sixty children, ranging from five to seven years of age. Dr. Hancock writes as follows:

"They were shown how to beat twice. Arm movements were used. Practically *all* could beat double time freely. Treble and quadruple were more difficult, but, by going slowly, it was done by all but fifteen, in the not more than two minutes' time taken for each test.

"They were asked to make one hand move in a circle on the breast; after this was started they were asked to place the other hand on the top of the head and to pat with it. In forty-five cases the result was either patting with both hands or moving them both in a circle, or an alternating of these, *but a considerable degree of success followed in each case*."

In these large exercises involving arm movements the children were, you see, fairly successful.

Here is a new test, however,—a test of finer co-ordinations of finger-movements—out of which they do not come so triumphantly.

A Revolt.

After Sir E. Landseer, R.A.

(Sheepshanks Gift.)

"The children were asked to rest their fore-arms on the table, the hands in an easy position, with the fingers curved, the lower parts of the palms and the tips of the fingers touching the surface of the table, and then to begin tapping, letting the movements proceed rapidly from the little fingers to the thumbs. They were also asked to reverse the order, but all failed to do so; five succeeded somewhat slowly in tapping correctly with both hands, four were successful with the right hand only, and three with the left; fifty tapped with the whole hand, using a wrist motion; forty-nine alternated the index finger with the other three; twenty-five gave irregular movements—indefinite and uncertain; in twelve cases the movement was from the knuckles, all the fingers moving together."

It is clear that the children had little or no control of the finer muscles. Power over these belongs to a later period of life than that which they had attained. The order of development of control is body, shoulder, arm, fore-arm, and last of all, hand. Even there there is a definite march or succession of events. Control of the index finger develops first. Control over all the fingers is gained gradually, but at last excels the control gained over the upper part of the limb, and translates itself quickly into new intelligence. (This is not wonderful in view of the fact that movements are

registered in the brain, and involve the awaking of brain cells.) In the case of the artist, or even of the good craftsman, this control becomes so great that he can express all his best power or feeling through his hand. Mere manual dexterity will not enable anyone to be an artist. For it is the mind—the soul that is expressed in Art. But though it is well to know that dexterity is not Art,—that the motor centres are not the soul,—still we may feel assured that to injure the hand is to injure the brain. A child cannot become an artist, till he has passed (it may be very rapidly) through many successive stages of growth. Yet nothing but mischief can attend the attempt to hurry him forward, and make him attempt what is beyond him.

In play every young creature performs the movements natural to his age. The lamb frolics, the kitten runs and turns over and over. The child too frolics. He jumps, runs, swings, and sets every limb in motion. Now control is first established between the brain and any limb *as a whole*. Therefore these large, massive movements of the child in play are educational, and it is through them that the brain is, as it were, got ready for any finer control.

Thus even the class-room of young children ought to be a place where *they can play*. And this—in new

Junior and Infant Schools—it is becoming. For, in choosing the exercises of a child, the more enlightened teacher feels more and more that he must take the spontaneous movements into account.

He has to take them into account, not only in providing for children's play, but in arranging their employments or school work. He has to remember them especially indeed in giving training in the class-room.

For the wrong kind of movements induces disorder and weakness just as certainly as the right kind of movements gives new power and control.

CHAPTER IV.

ARM AND MANUAL TRAINING.

LOOK at the hand of a defective child. The fingers are probably stunted and ill-formed—cold and blue—the nails broken, the palm stiff. Indeed the whole hand often hangs stiff and motionless, moved like a dead thing from the wrist. Suppose a teacher wants to train this hand: how does she begin? By maxims? By lessons in reading or writing? No. But by movement—by exercise. And she cannot even begin by movements of the hand. She must let her pupil exercise the shoulder and arm muscles. Light may be in the child—and power, and will, just as life may be in the apparently drowned man. But she can restore it to the helpless body only through artificial movements.

Look now at the hand of the intelligent labourer or artizan. Perhaps it is somewhat spoiled by hard labour. The fingers may be tightened—the palm stiffened. Still it is not a coarse hand, for a coarse or (to use an expressive French word) "grossier" hand cannot belong to an intelligent worker. Adam Bede's

arm was that of a giant, but the hand was "long and supple" with eloquent finger-tips. Nature takes care that such a hand shall be royal even in his rudeness. His hand is like a page marred with stains and blottings, but with good news legible behind all that. And if the good workman's hand is eloquent, how much more is the hand of the artist. Indeed there is nothing more beautiful or awe-inspiring than a great artist's hand. And doubtless the old painters found this to be the case, for they represented the presence of God in their pictures by *a hand.*

All true education is, primarily, physiological. It is concerned, not with books, but with nervous tissue. Therefore the parent who says brutally, "Let my child go to work, and he will learn enough," is not wholly in the wrong. His words are reckless and cruel, and *under existing conditions* have no warrant at all. Nevertheless it was through work, and not by books, that our race received the vital part of its education. The question now before us is one of elementary training. Here is the little arm—the little hand of a child of five: How can these best be exercised so that the whole body shall be the gainer?

At the very outset we have to recognize that we cannot separate development of the muscular sense from that of the sense of touch. Even when the

arm is motionless, the *thought* of movement will increase, not only the flow of blood to the brain, but the flow of blood in the arm. And this accession of power and volume is translated in some measure into an increased susceptibility: which means that even movement affects the sense of touch, while at the same time touching, or handling, is a succession of movements. It is natural and inevitable that in training an arm and hand we must think, not merely of what it draws, but mainly of what it forms, or *models*.

The infant receives, as we know, in his cradle some training of the basal sense. He touches many things, though he does not try to shape any. But long before the age of five he begins to pound and mix mud-pies, to roll sand into towers and spires, and (if he can lay hands on a knife) to chip wood into blocks or points. Then he comes to school, where this natural education is or ought to be continued.

From the first the sense of touch and that of vision have been close allies. The child has already seen many things, and has learned to see them better through handling. But in the school learning is made easy. Here is clay—a malleable substance—and (we will suppose) many forms are put within his sight and reach. The successful teacher of a class of very young children shows us 16 life forms, besides balls,

rolls, geometric and fruit forms. The average child, entering the modelling class does not begin to work; he looks at the models, also at his new companions making the movements that are necessary. He gets the idea of a movement, and this is, in reality *the beginning of movement.*[1] The more intense the idea, the more imperious the need of action.

But the desire to touch, model, and make is accompanied in the normal child by another tendency—viz., that of drawing lines, or masses on a flat surface. The child's favourite drawing-surface is a wall. This ought not to surprise us, for do we not ourselves hang pictures on walls? The child likes to draw them on walls, and so constantly is he tempted to do this, that the school-keepers of nearly every Board have instructions "to wash out all writings and drawings on the walls."

It sometimes happens that a teacher is bold enough to let the child lead him. Of such teachers is Mr. Liberty Tadd of Philadelphia, whose success in teaching drawing to children is awaking so much interest at present.

He allowed his small pupils to draw on the wall—or on some large, upright, prepared surface equivalent to a wall. And he went further. Having observed

[1] We know, to our cost, that the *idea* is the beginning of a movement or action. For very often we cannot stop this movement. For example: having thought of something we desire *not* to say or do, we proceed infallibly to say or do it.

that young children make large movements as compared with older people, and obviously possess only a very limited amount of control, he permitted them to draw, not with one hand only, but with both arms and both hands!

The wisdom of the latter step can be questioned only by those who ignore the closeness of the relations that exist between the various parts and members of the body. To exercise the right hand is to exercise at the same time an area of the left side of the brain. To speak is to increase the energy of the right side of the body. Many people become excited through the mere act of speaking, more especially if their speech is accompanied by gestures of the arm and hand. Féré points out that if one makes with the foot certain movements on a pedal, the force of the corresponding hand is soon much increased—later, even the energy of the other hand is augmented—that is to say the movement of one member reinforces every member. The movement itself is a stimulus, and may give rise to much finer orders of movement. When a deaf mute has gesticulated with energy for some time he nearly always gives vent to an inarticulate sound—that is to say he touches the borderland of Language.

The exercise of any member, then—of any cerebral

centre or area of the brain—has an effect on the whole system. But in spite of this subtle communion and interdependence, different members and areas of the brain have a certain independence of a nature to ensure reciprocity and supplementary power. For example: when the right hand is tired out by the repetition of one or more movements, the left does not lose its energy. On the contrary it seems to accumulate new power. In cases of great intellectual labour and fatigue the strength of the left side diminishes less rapidly than that of the right.

A young child has little power of voluntary attention—and correspondingly little strength. On the other hand, he shows a tendency to make a great number of large movements. Moreover, he uses the left hand as well as the right, will hold out the left hand in greeting, or seize his chalk, or book with it. And this tendency ought not to be early discouraged. It is obvious that as the child grows, and the nervous system is more and more highly differentiated, the work of various members will become more and more finely sub-divided. The artist does not draw with both hands, but with one hand. But we are not now concerned with the artist or his work, but with the physical training of children as a preparation for every kind of useful and noble work.

A child is not ready at the age of 5 as yet to do fine work of any kind. He is ready only to make large movements.

The first lessons are concerned, then, with large arm-movements. Below is a portrait of children taken in the studio of Mr. Bloomfield Bare. They are aged

four and five respectively. They stand before an upright board fixed in the wall, and draw lines, or swing circles, repeating the same movement many times. They make a great many mistakes, but they do not rub out. They go on working. "Human feeling," wrote George Eliot," is like the mighty rivers.

It does not wait for beauty. It flows with resistless force, and brings beauty with it." Human power, too, is like the rivers. It flows, and brings beauty with it.

At first the drawing is automatic (as it will be again, later on, though in quite a new sense). The child is led on, or helped, by his very weakness. He sees a movement made, and the idea of this movement takes possession of him. As the nervous system is as yet little differentiated he offers no resistance as it were, but begins instinctively to execute the movement. At first his arm and hand have wonderfully little energy—the lines or circles are weak, and faltering. But this is soon changed. Through the various sensory impressions involved in the making of the movement, and the frequent recurrence of these, the mental representations become more and more distinct. That is to say the *attention* is roused. And with attention comes, as we know, a new accession of power—which is not merely intellectual, but in its most striking manifestation, *muscular*. Thanks to exercise, and the more abundant flow of blood to the arm and hand, the sensibility too is enhanced. The child becomes capable of feeling and seeing a new world; and at last becomes ready and eager to be introduced to the new alphabet of *form*.

He learns this new alphabet, not merely by drawing on the black-board, but by the work of his own hands. "Children of six," writes Mr. Tadd, "take pleasure in making balls, stars, pyramids, rosettes, mushrooms, easy fruit forms." Then it is but a step to animal forms—chickens, ducks, swans, star-fish, horses, sheep, men and women: let him attempt to model them all. He will make grotesque models—but in making them, he will receive and register a vast number of impressions, exercise his imagination, as well as his observing and perceptive faculties, strengthen and refine the hand, and awaken dormant areas of the brain. Meantime the blackboard work is to be carried on. Line and Loop Drill, spirals, scrolls, leaf-forms, combinations of units—and, at last, simple and original designs. This is Mr. Tadd's bold but very natural order of exercise—his pupils being allowed to pass very rapidly, as we see, from the stage of mere automatism and imitation.

Gradually through power gained over the muscles a new power is evolved—a higher one. The will emerges and takes possession of the kingdom which has been prepared for it, and out of which it has been liberated. Gradually, too, the movements which have been conquered, and which can now be executed with conscious power and steady hand, become, in a new sense, automatic. Movements which have been

conquered can be made almost without effort—they fall under the jurisdiction, as it were, of the unconscious cerebral life, so that the intelligence, no longer occupied with them, can devote itself to some new conquest. And this is why well-trained people appear to achieve great things. We look at their work and think of it as a single success and effort; whereas we are looking in reality at many successes, at the result of innumerable efforts many of which are long forgotten!

The next photograph is a pleasant one. To be sure, the face of the youthful artist is partly hidden, but one knows that it is a charming face. The attitude is gentle—almost caressing. The movements the child is making are in every sense appropriate - appropriate to her age and status, and nature.

And this beauty, this grace in movement is obtained through control, and through nothing else.

Yet we would be very wide of the truth in thinking that the control itself was a mere matter of grace!

. . . . . .

The true Teacher is always an artist, and his training is always Art-training even when it is concerned with the mere swinging of circles, the guiding of unsteady little hands, the rearing of the scaffolding on which the future worker's and thinker's life-structure will rest.

Art-training proper begins, however, only when the movements are highly specialised.

When the child has passed out of the lower stand-

ards his movements in drawing, or in other modes of expression, must be determined very largely by the character of his own mind. Otherwise he ceases to express himself altogether, and merely copies another

person's movement quite mechanically. "You may," writes Walter Crane, "drill a number of children to do the same thing with remarkable precision, but to really put them in possession of a method of expressing their thoughts and impressions is another matter." The reason of this is not far to seek. A child's movements represent his mind. For the brain initiates the movements which accompany or follow perception, images or ideas. Through the muscular sense he is conscious of these—not as a thing apart —but as an integral part of his own life's individuality. As he executes these he finds a new stimulus. Where the movement is imposed the stimulus will be lacking. The energy is not reinforced—the attention is not arrested. To impose movements unduly is to interfere with the life processes, to make life, and therefore any expression of life, impossible.

Nevertheless since all mental life depends on movements, and arrests of movement—and since, moreover, during the earlier years the movements are not so much an expression of life as a means to its awakening, it is obvious that much depends on the orderly development of the motor centres. Let the brain be unduly taxed before the emotional system, and the mental life will be barren and colourless. Let one side of the body be neglected while the

other is trained, the nervous system will be liable, to strain, and the brain exposed to the risk of sudden lesions. Let the child perform small and intricate movements before he has practised larger ones, and his nervous system, like a machine which has been wound up too lightly, will begin to respond with fearful rapidity, like wheels running down and approaching final stoppage and collapse.

On the other hand, if the movements are well ordered we have a great guarantee that the whole life will be orderly and harmonious. "This is Poetry," said Emerson to his friend, as they watched the movements of a great dancer. "This is Religion," she answered, and both were right. For what is right conduct but beautiful and harmonious movement,—the perfected movement which implies so much arrest. And as thought is not merely cerebral, but also muscular, should we not consider all the movements of a growing child as conducive to either good or bad conduct, and direct him with some solicitude in those efforts whereby he separates himself through expression from the brute nature, and aspires to a higher human life.

CHAPTER V.

ORAL TRAINING.

"You may always stand for Form against Force!"—*Ruskin.*

IN giving oral training we have to do with an instrument. Everyone thinks at first that he can play on this instrument, and everyone finds at last that there are difficulties in the way. Then, many are content to treat the instrument roughly,—to get sound out of it—that is all—and turn their attention to other matters.

Even the teacher of singing and languages often pursues this course. The learning of a new language is, first and foremost, a physical exercise. It involves fine movements—new and complex co-ordinatives of nerves and muscle. But this is a serious matter because it is a matter of *primary* education. It has to do with the child's own body—his lips, and tongue, and lungs and larynx. Can the teacher himself make the necessary movements? Does he know how to help his pupil to gain the new control of the vocal organs? Very often he feels that he cannot do this, and so he hastens to do something else,—to teach *Grammar,*

for example—to give written exercises, to explain, to exhort, to memorize, to do anything in short except give his pupil the mastery of the new language *through his body*. And the teacher of singing will often follow a similar course. Behold John Smith in the elementary school. He sings part songs, reads at sight, understands the staff notation, keeps time, loves concerts. Yet perhaps he cannot take a deep breath! Perhaps he has not even been told that breath, the raw material of voice, has anything to do with speaking or singing.

"What!" cries Mrs. Smith, the average mother—"Have our children then to learn to breathe? But they breathe as soon as they are born. The movements of breathing go on without any necessity of interference on our part." Yes—it is true that the infant breathes naturally, but it does not follow that he will continue to do so for many years.

As a matter of fact the average child does *not* continue to breathe in a healthy and natural way when he has outgrown infancy. *Practically all* town children are costal, or collar-bone breathers—that is to say they breathe without inflating the lower part of the lung. And country children, sleeping as they often do in stuffy rooms, and sitting for hours daily in foul air, are hardly in a better plight.

A great pity surely. Here is a boy called John Smith, attending the elementary school. His age is eleven. He falls short by two and a half inches of the normal stature of a boy of the upper middle class. His chest is too narrow by six or seven inches. He breathes from the upper part of the chest. The nostrils are light, and the upper lip is probably stiff and motionless. Ask him to take a deep breath, and he will probably close his lips tightly and pull up his shoulders. But he cannot take a deep breath—has not taken one possibly for years.

The Americans declare that the first duty of a teacher is to "generate force." It would be easy to generate new force in John Smith. Here is no disease —as yet. Here is an intelligence waiting. Nay, the intelligence is not waiting. John is passing his standards. His brain and his lungs are acting as well as possible under the circumstances. But that he is heavily handicapped you may judge from the following words written by Dr. Kerr, the able medical adviser of the Bradford School Board.

"Mouth breathing, whatever its cause, leads in lesser or greater degree to a chain of evils. (1) Interference with the amount of air breathed, and consequently poor nutrition, and stunted growth. (2) The setting up of catarrhal conditions of the ears, leading to

diminished hearing powers, or even to actual suppurative disease of the ear, generally ending fatally before middle life. (3) Interference during the growing period with the circulation and consequent nutrition of the anterior lobes of the brain, making the child dull in school, and, in after life, lacking in character, shiftless, and unable to form a decision" etc.

It is clear that the average child is being seriously injured by the conditions of modern life. If we could say to him: Go live in the sunshine. Breathe the pure air of day and the pure air of night! Climb, wrestle, and run like a young animal—all would soon be well with his lungs. But it is clear that we cannot do this to-day, nor even to-morrow. The stuffy sleeping-room will not be pulled down, nor the narrow streets razed to the ground next week. Meantime the condition of the average child—not the slum child—but the child of the well-to-do artizan is a serious one. By any and every means we must generate new force, or at least prevent all the finest force, the breathing power, which is the staying power, from flowing away.

We must give John Smith some training in breathing.

The beginning of things is often difficult—but the first breathing lessons are easy enough. Make the child lie flat on the floor or on some dry substance

out-of-doors. See that the room (if you are indoors) is well ventilated, for it is of no use to teach a child to breathe *bad* air well. You might as well give him his food in an unrinsed poison-bowl. See, too, that his collar is loose, and that no belt or band is pressing on the base of the lungs and the waist. Let the child then close the lips, and take a breath *slowly* through the nose. When he can no longer take air into the lungs without straining, let him open the mouth, and let the breath out quietly and noiselessly. Let him repeat this four or five times and then rest. At first he may experience a little difficulty. The *will* must be exercised in order to make movements which were once involuntary. But they are *natural* movements, so the child will soon slip back into them, regaining (what he ought never to have lost) the art of deep, quiet, natural breathing.

These few instructions, and many others, may be found in Mrs. Emil Behnke's useful little book, "The Speaking Voice." There too will be found a list of graduated breathing exercises which bring into play the muscles of the whole chest.

It is a good thing to begin if possible by individual training and then send the child into the class-rooms or gymnasium. Supposing there can be *no* individual

training, then it is not right or necessary to have a teacher breathing all day in an exaggerated manner. As an irate superintendent once observed when such a course was proposed to him, "No one ought to be expected to make a porpoise of himself." Besides such a course would not be the right one even in the interest of the pupil.

The aim is to get back to Nature—and to natural movements, and happily there are various ways of doing this. The best way is of course to reproduce the natural environment as far as may be in the class-room. The growing child climbs, runs, wrestles. At a very small cost ladders and ropes could be fixed even in an ordinary schoolroom. In hanging from the hands the veins of the spine become stretched, and the current through them is hastened. No one who understands anything at all about the structure of the human nervous system can fail to see how this must lessen nervous fatigue. Then, in this position the muscles which connect thorax and arms are strongly exercised. As the child swings on one hand or another the chest expands, and a great supply of air flows towards this region. Climbing, hanging, and heaving movements form the corner-stone of Ling's system, and to get these, and equivalents of these, he exercised the greatest ingenuity. The entire absence

of any kind of apparatus did not prevent him, need not prevent any teacher, from giving the exercises that develop the respiratory powers. The stretching both arms upward, sideways, etc., have the same effect as the true heaving movements. And the teacher ought to vary and adapt these so that every part of the lungs is exercised.[1] His knowledge and zeal are to make good to the child something of what he has lost in being debarred from the wild free life of the open.

And they are to do something more than this.

For the final aim of such exercises is, let it be repeated, to give something more than muscular or brute force. It is to give the staying power of life—the power which the brute cannot possess. This power seems to imply an extraordinary physical *activity,* possible only in highly developed organisms. As respiration grows deeper the tidal volume of air increases: more blood passes through the pulmonary vessels; more oxygen is taken into the blood; more energy is supplied to the body. The brain and nervous system are more richly nourished, and their latent power developed suddenly. Thus the breather attains

[1] A series of arch-flexion and heaving movements can be found in Baron Posse's book on Educational Gymnastics. Publishers—Lee and Shepart, Boston.

a new freedom—a sense of moral repose. He comes to himself, and finds self to be something greater, and stronger than he supposed. The temptations of yesterday lose their force, because he has new force to master them. The sordid and ugly aspects of his nature disappear under the mounting tide of his energy, as the rocks disappear under the rising tide. All this the subtle Greek knew, not by hearsay, but by experience. Wrestler, teacher, actor, and orator desired breathing power, as the first condition of moral and physical perfection. No price was too great to pay for the power—on which so many others depended!

It is a pity that we do not follow the ancient Greeks in this matter. The sea washes round our land, and her breezes sweep over our hills and moorlands; and yet consumption is the scourge of our country. And doctors, orators, singing-masters report, not always very re-assuringly, on the condition and habits of John Smith.

"His chest is too narrow," says one.

"He does not sing as he ought," cries another.

"His conduct and manners are not what they should be," declares a third.

To the first we may make answer: "The chest is not likely to develop quite independently of the

lungs." To the second: "It is not likely that a child can sing well, if he has but a scanty supply of the raw material of voice—to wit, breath." And we may remind the third that all human weaknesses, and brutishnesses are very much a question of *vitality*. Just as a child who hears well in the sunshine and with eyes open is found to be deaf when he is in the dark, so many children are cruel, unreasonable, and even brutish when the vitality is lowered, who yet become tractable and intelligent when the river of life runs free and high in their veins. Many a person *cannot* be led out of temptation save by being raised above it through physical culture, enriched vitality, and the enlarged consciousness which comes *with* these.

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So much for breath—the raw material of voice. It is a great thing to have plenty of it. But having got it, the next question is "What are we to do with it?" The uneducated person uses it recklessly, speaks very loudly, or raises the pitch. But, as a matter of fact, carrying power does not depend on the volume (or amplitude of the vibrations). Neither does it depend on pitch, or the number of the vibrations. The carrying power and *quality* of a voice *depend on form—the form of the mouth and larynx.*

The movements of the tongue, lips, and throat are so rapid in speech that very few people except voice trainers analyse them, or think of them at all. It is only when we have to learn a new language (not merely the grammar of a new language) that we realize that the form of the mouth etc. has anything to do with the quality of the sounds we make. And yet no art illustrates so forcibly as does the art of speech that form is more than force, that form *conditions* force. Above and below the vocal chords are air-passages which act as resonators or resounding chambers. In speech the resonance chambers are numerous and vary much in form. They intensify some tones over others; they check, too, and modify tones, and all this depends on form. The trained singer or speaker gains control over the muscles so that the shape of the throat and larynx is modified at will, and this power becomes at last involuntary. He exercises it without conscious effort, his speaking and singing organs have become refined, so that he has a perfected instrument at his service.

Children do not of course learn to speak by thinking of the form of larynx or mouth. They learn by hearing other people speak and by imitating their sounds and movements. At school the hearing sense is trained by means of the Ear-test. But the ear-test, and

indeed the singing-lesson is a small part of the child's vocal and oral education. This education is carried on—not during one hour in the day, but during every hour in the day through *imitation.* He listens to the voices around him, and copies them faithfully, making all the movements necessary in order to reproduce what he hears.

Here, for example, is a class of children who have been taught by a lady whose voice is rather cracked. Lo! All the children have the same cracked voice—every tone and trick of it faithfully reproduced. Here is another group of children whose singing mistress is old. Close your eyes and you will hear a chorus of aged voices—the little rogues might be grandfathers! Go into the slums and you will hear baby-voices that are already harsh; in the class-rooms of a well-organized kindergarten for upper-class children you may listen to the sweet tones of children who have had good vocal examples to copy. Children reproduce the tones they hear; and as tone and inflection are the expression of feeling, they doubtless share in so doing the emotional life of the persons around them. So that voice production has, from whatever point of view we look at it, an enormous *moral* influence.

Everyone admits that the voice, and the inflections

of the voice express feeling. A few trivial words may have enormous importance through the inflection of the voice that accompanies it. It is the heart itself —the soul—that unveils itself and communicates itself in the tones of the voice. And everyone, even the most ignorant person, knows this, and is sensitive in vocal matters. There is nothing a man or woman resents so much as that his own social equals should speak more beautifully than himself. If one factory girl, for example, dresses more tastefully than another her companions do not condemn her for this. She may even learn to draw, to embroider, to play on the piano,—she may marry above her and no one will be jealous. But if her voice becomes musical, and she begins to speak beautifully—that is another matter. Her old friends are estranged. Even her mother is indignant—feels that her daughter has escaped from her. And this feeling has a very real justification. The changed voice *does* indicate changed, or at least, *new* feeling. It indicates, too, a new understanding, and therefore (in so far as the uneducated mother is concerned) new misunderstanding. Between friends, between classes, between strangers who wish to draw close to one another the first spoken word betrays all that divides.

Voice culture is therefore one of the first conditions

of growing sympathy. Mou-mou, the dumb giant of Tourgenieff, loved a dog and a woman. He drowned the dog, terrified the woman, and was never able to love any other creature. Doubtless, (however pregnant silence may be) the feelings we cannot express in any way tend to become weakened, and to be lost entirely at last. While those we express even imperfectly are shared by others, become our own in a new way—and give rise to feelings of a still higher and complex kind.

"But how are you to give this culture," asks Mrs. Smith.

The answer has been given already as far as children are concerned. We must give them good models to copy. Hitherto we have considered voice culture too much as a thing for singers only. We have forgotten that it is through the speaking, not the singing voice that the most important vocal education of our race is given. And so, while we listen with delight to the great concert-Queen, we forget to listen to the woman who trains and teaches John Smith. Perhaps we might never remember that she had a voice at all but that the throat-doctors remind us of it. Board School Laryngitis (which is not confined to Board Schools, but it is common in *all* elementary schools) is the name given, not to one disease, but to a group of throat

diseases peculiar to teachers. "One form of this disease," writes Dr. Greville McDonald, "appears at first to be ordinary chronic laryngitis. But as it develops it reveals, not merely its own nature, but *its origin*. Capillaries appear on the upper surface of the chords, which instead of being of a pearly whiteness, have a sodden appearance. The fine, sharp margins are rounded. The vessels enlarge, the base of the arytenoid becomes swollen, and the voice of the patient becomes rough and hoarse. In some cases the voice is entirely lost. The treatment is difficult, as the capillaries are liable to inflammation after the operation, and even where only one is touched the patient may become aphonic."

Another species of teacher's throat disease is called the hypertrophic. The growths are on the margin of the vocal chords. These growths were called by Stoerk, "Singers nodules". Dr. Greville McDonald tells us that he has never seen them in singers' throats, but only in the throats of teachers. Another throat specialist tabulated twenty-seven cases among voice-users. Of these twenty-seven persons only six were singers, and not all of the singers were trained. It is not to excessive use, but to unskilled use, of the voice that we owe the rapid spread of throat disease. A much used, well-used voice is like an old violin.

The modern class-room is too often a noisy place. It looks out perhaps on a thoroughfare or street where carts and carriages are always passing. The atmosphere is chalky. The whole environment unfavourable to the speaker.

For one can no more speak beautifully on a background of noise than one can draw on a background of daubs and scribblings.

"The remedy," cry some, "lies in lessening the oral work of the teachers."

Certainly the average teacher speaks too much. But to lessen her work is no remedy. If the human voice is a thing to be got rid of, if we can supplant it by something better, then we might say "let us have as little oral work as possible." But the human voice is not a thing to be dispensed with, or supplanted. For nothing can take its place.

The human body transforms the movements communicated to it from without, with variations and modifications which are determined by its own molecular constitution. This molecular constitution varies in different individuals, and therefore every individual re-acts in a specific way to the different excitation she receives from without. Some are peculiarly sensitive to excitations of smell, some to those of colour, and a large number react in a peculiar way to all excitations of sound.

Agreeable and gay sounds excite the motor centres, and raise the vital energy; sad, and depressive music has the opposite effect, and should therefore be avoided in schools. But the impressions received in hearing are in the majority of persons very lasting and peculiar in their effects. They involve a vibration of nerves more numerous, more delicate, and more distinct than those connected with any other sense.

This being so, it is important—

First—to provide what we may call a good aural environment for the teacher—that is to say a pure and still atmosphere.

In the second place—to give the training which will make her oral work easy and effectual.

Thirdly—School Boards and Managers ought to aim at making the classes smaller, so that every child may speak as well as listen.[1]

And finally, wherever a foreign language, such as French, is taught to young children it should be taught *orally* and not out of books. The physical exercises necessary in order to make the child able to utter the new sounds should be taken as naturally

[1] It is noticeable to-day that children use a veiled voice in speaking to the teacher. In the play-grounds the voices are often rough. In reading an artificial intonation is common—indeed general—the child copying the teacher's inflections, though his own *feeling* has no relation to them whatever!

and inevitably as any other part of physical gymnastics. And no teacher should be engaged to teach a language who has not learned to speak it well.

In this way oral culture would be raised to its right place in education, and its effects would be seen in a sudden increase of vigour, in new refinement, and growing sympathy.

CHAPTER VI.

MORAL TRAINING.

ONE day a little waif of seven, having committed every other sin he could think of, proceeded to strangle himself with a rope. He was under treatment at the time in the hospital, for a disease which was entirely the result of dirt. The nurse coming suddenly into the room, found him stark and black! Hastily summoning aid, she cut the rope through, and began to take measures for restoring the child to consciousness.

"How unhappy he must have been—poor little fellow," she said at last to the doctor who was helping her.

The doctor was watching his patient: and he had just assured himself that that small personage enjoying the drama of resuscitation, was prolonging it by continuing to execute the movements of a person *in extremis*, long after such manifestations were necessary or natural. In this dramatic representation he was very successful, thanks to his minute observation of a dying man in the ward.

"Unhappy—not he," said the doctor. And he proceeded to intimate emphatically to his young patient,

CHILDREN OF THE STREET.

that the time of danger being over, he could no longer receive the ministrations due to the dying, but must prepare, if his convulsions continued, to receive attentions of quite another order. Upon which the young actor sat up, and looked around him with steady nerves and some curiosity.

Visitors came to see him. All curious, all sympathetic they stood around his bed.

"Why did you do this terrible thing?" asked a lady.

The waif's eyes twinkled.

"Oo! I wanted to see what Hell was like," said he.

Perhaps the child's words were true. Curiosity does exist in beings who seem to be too coarsely organized ever to experience fear. According to the registrations of the electric algometer with which pain is measured in millimetres upon the sliding scale of Du Bois-Raymond, the tactual sensibility of the criminal is 34 mm. as compared with 50 mm. in the average man. He fears less, partly because he *feels* less than others. He is less capable of even physical pain. This fact was well illustrated in the case of this same little waif. Owing to a scalp disease which had been engendered by neglect, it was necessary to have what would have been a painful operation to an ordinary child performed on him every day. He, however, showed no sign of fear or pain—whistled under the doctor's

hand. Some may say, "This was bravado—or fortitude." But the doctor was of opinion that it was neither. He was convinced that the child's indifference was the result of insensibility. That he suffered not at all. And this physical obtuseness found of course its parallel in his mental life. Nothing disturbed him—nothing affrighted him. No saint, no stoic could have been calmer under "trying" circumstances. Thus it seems as though the hard and cruel person is bound to escape the worst torments—being incapable of experiencing them.

In order to understand the conduct of another we must first have some notion of his condition. The *causes* are buried deep in the organic life, as the roots of a tree are buried in the ground. Even the smallest change taking place in that obscure world may be followed by the most bewildering consequences. A dose of potassium bromide, the application of a magnet to the arm, or neck, a slight change of temperature—and lo! the character of an individual seems to change. And as it is impossible for us to know the condition or, if you will, to follow the condition of another unerringly, or even to be conscious of all that is taking place within ourselves at any moment, we cannot hope to find a universal panacea for human sin and frailty. The greatest teachers have understood this

very well. "All cannot receive this saying," said the Nazarene. And again, very sternly, "Give not that which is holy unto the dogs." Yet for all that the seed was to be scattered broad-cast—to lie in stony places, to struggle among thorns. After all, the crumbled rock will make rich soil at last. "Adieu, marbre, tu seras fleur," said the dying Seraphita. "Adieu, stony heart," the great Teacher may have said, looking down the ages and beholding a thousand generations struggling, falling, hoping, rising, groaning and travailing in ineffectual virtue and returning desire and repentance till the race was born that could only obey the higher law. "Adieu, stony heart. Thou shalt blossom at last."

The highest Law has been given, but the people must receive it as they can, and interpret it as they may. The interpretation is often grotesque, but seldom quite insincere. The Spaniards of the Inquisition upheld Christian principles by torturing helpless persons and then putting them to death. But there is no evidence that all the Spaniards were hypocrites. "Ah!" cried a converted king, little given to concealing his feelings, on hearing the story of the Crucifixion—"Ah! If I had been there with my brave Franks they would not have dared to kill him!" In the heart of this naïf barbarian and his warriors love took the form of wrath and

desire for vengeance on those who had destroyed the Saviour of the world. Such primitive men could not apparently even conceive of a negative morality. No moralist could have walled up their flaming souls with prohibitions. To love was to act. Every passion that rose in their hearts expressed itself suddenly, in actions that were almost reflexes. And this is exactly what happens to-day. We are no more ready than were the people of the first century for negative morality and a gospel of mere abstention. Secretly or publicly, gaily or sorrowfully, eagerly or patiently we all *act*— and cannot cease from activity. For our energy may be transformed, but is not to be suppressed. "Thou shalt not" is written on the door of every prison, and yet the great tide of vice and crime ebbs and flows as rhythmically as the ocean. The number of scandals, murders, thefts etc. in the coming year may be safely predicted. The moralist knows that the water will rise, though he is seated, like Canute, by the shore, issuing mandates or advice in the hearing of an admiring but anxious retinue.

"Thou shalt not," says the teacher to his rosy-cheeked urchins. And the spirit of mischief retires into the depths of their hearts, whence he will re-issue presently like a giant refreshed. All the flogging at Eton did not make the boys kind to their 'fags',

though it probably kept them within bounds in the class-room. The day of mere preaching is over. Doubtless the day of formal punishment will follow it at last.

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In the infant the vegetative life predominates. The whole area of consciousness—if he can be said to have any consciousness—is filled up with sensations of cold or warmth, hunger or satiety, comfort or discomfort.

His eyes are open during a short period every day—but their sense is shut. They gaze vacantly on everything. Every sound and sight is mingled and lost in a chaos out of which nothing emerges.

Change and progress are heralded in a new separating out of one thing from the many. One day the infant's eyes rest vaguely on some separate moving light or glittering object. He turns his head on hearing a voice or a noise. Something is rising out of the void. The mother is delighted that a new epoch of life has been entered on. "He is beginning to notice," cries she.

How does the normal child begin to notice? The unhappy mother of the idiot babe often asks herself this question, looking anxiously at her own offspring. *He* does not notice. He seems to be always awake.

(Some idiot children seem to be always asleep!) Always wailing, always restless. Nothing lulls him, nothing arrests his aimless activities. But the normal child wakes and sleeps. Then one day he is *interrupted.* He listens. He sees.

This event, so dramatic and astounding to the mother, is a culmination; it is the last of a long series of events. Below it and behind it there are myriad nervous activities and movements which, multiplying and rolling on, as it were, like waves, have at last touched the high-water mark where consciousness is tossed upward like spray. The unresting waves may now be charmed into stillness. The innumerable nervous activities disseminated throughout the body, and translated hitherto only into a vague sense of comfort or discomfort, appear to receive a momentary check. Progress is manifested by an interruption.

In a more advanced stage of existence progress takes place in much the same way. Stories of sudden conversion illustrate for us this fact in a dramatic way. Saul, breathing forth wrath and threatening, sees a light and falls down helpless. The unbelieving John is stricken dumb. It is not necessary here, however, to discuss instances of extraordinary arrest — though these are common enough even to-day.

Let us take the case of a child under no conviction of sin whatever. Here is a child whose name is William. He is eight years old—the son of criminal parents. The criminal is usually *weak*—a negative type of being, violent *because* he follows the line of the least internal resistance. William steals, swears, lies, and behaves like an animal. He spares no weak creature who falls into his power. When a playmate offends him in ever so small a way he strikes with all his might. All his defensive and aggressive actions are swift and violent—swift as the winking of an eyelid—violent as the knee-jerk. One cannot say of such actions "They are immoral"—for they belong to the category of reflex actions. Nevertheless, William is capable of improvement. He can progress—not through the preaching of negative morality—but through *checks*. But *what* can check him? It is the organism itself which will have to be interrupted. For in speaking of the character or actions of any being we are speaking of something which is the result of his organic life. The surest check, indeed it may be the only check, is one which will arrest, not the will, but the members. And what is it that suddenly and certainly arrests the muscles? There is but one answer,—"Emotion." Emotion can modify or even arrest the organic life. It is the great interrupter—and therefore

the first (and in great measure the last) condition of human progress.

People understood this very well even in the dark ages. Never did they understand it so well perhaps as when the world was chill with fear, and darkened by tyranny! For indeed fear itself is the most powerful emotion of all and has the most sudden and violent effect on the organism. The emotion called 'grief' has a very noticeable effect on a certain group of muscles. But under the influence of fear *all* the involuntary muscles are affected. During the first moments the heart seems to beat faster, coming to the help of the perturbed brain, but this rallying of the central organ does not last long. Ancient pathologists believed that the blood of terrified persons actually coagulated in the veins. The whole body seems to become for a moment frozen and still. Terrorized creatures often stand motionless—unable to flee even from a pursuer whom they might outrun. And we imply all this when we say "He was transfixed by fear," or "He was struck dumb by terror."

It appears at the first glance as if Nature was very merciless to little children. For they, more than grown-up people, are liable to this dread emotion. Not only do they fear (sometimes) the big and (in their eyes) powerful persons around them, the teacher

who can punish, the father and mother who can withhold, but their little hearts and minds are often beset by a world of ghostly terrors. They, like the savage, the man of primitive type, are the victims of many violent emotions—but especially of fear. When night falls the world begins to be for them a place of mystery. The clothes hanging on the nail become a dark man. The bough tapping at the window is an awful hand. And in the outer darkness—what monsters are prowling! Even when sleep comes the little one is not always delivered. The most blood-curdling dreams of all are those we have dreamed in our childhood. Robert Louis Stevenson in a "Chapter of Dreams" writes of his own dreadful experiences as follows. "When as a child he (Stevenson) had a touch of fever at night and the room swelled and shrank—the poor soul was very well aware of what must follow, and struggled hard against the approaches of that slumber which was the beginning of sorrows. But his struggles were in vain: sooner or later the night hag would have him by the throat, and pluck him, strangling and screaming, from his sleep... The two chief troubles of his very narrow existence, the practical and every-day trouble of school-tasks and the ultimate and airy one of hell and judgment, were confounded together

into one appalling nightmare. He seemed to himself to stand before the great white throne; he was called on, poor little devil, to recite some form of words, on which his destiny depended; his tongue stuck, his memory was blank, hell gaped for him; and he would awake, clinging to the curtain rod, with his knees to his chin."

Dreadful as this emotion is, healthy children love to induce it. They take a certain pleasure in thinking of weird places and things, and love to tremble in the twilight. Ghost stories have a peculiar charm for them, and this is why the good-natured unprincipled nursemaid tells them at the risk of losing her situation. It would almost appear, as a certain American writer has remarked, that nature encouraged children to stimulate their minds and intensify their sensations by coquetting with an emotion which, in its more violent forms, is capable of inducing death.

And indeed, impersonal fear—fear induced by the mysteries of life and Nature—has an educative function. The civilized man, having experienced great fear, is immediately conscious of an uplifting—an *idealization* of the whole nature. His mind is suddenly clearer, like the atmosphere after storm; and his thoughts, temporarily arrested, begin to run in purer and broader channels. The evidence of this uplifting influence may

be traced in the religious feeling of the primitive man. The little child, like the savage, sees the world as a place of possible terrors and phantoms. He, too, is tormented and also uplifted by fear. Later his experiences are less poignant. He accommodates himself to his environment, just as his vision once accommodated itself and measured the size and distance of things, and then his most agonizing fears, like his brightest dreams, fade into the light of common day.

Yet let not the teacher or parent dream that he can inspire a fear which will have highly educative after-effects. That was the mistake of those who threatened and tortured, and "made examples" of criminals. No. The fear of man is destructive. It is an impure emotion, it is always mingled, on the side of the inspirer, if not with malice, with a secret gusto accompanying the use of power, and with corresponding humiliation and the impotent desire for vengeance on the part of the victim. It sullies or weakens love and introduces division into the mind. Education must ever be initiated by the introduction of checks or interruption, but these should have no affinity with the depressive emotions of fear and grief.

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Ruskin in one of his later works makes allusion to a certain painting by Sir Joshua Reynolds. The sub-

ject is a beautiful little baby-girl, with her hand on the head of a dog. Both have evidently heard a stranger's step, or perhaps seen the stranger enter. For the child is still, its eyes wide with wonder. The dog, however, is very alert, very indignant. He is expressing himself vigorously, and it is clear that the stranger has not interrupted him. The higher creature, on the other hand, is *arrested.*

Wonder holds the little girl in suspense. Involuntarily she attends to this new thing, or new person. Involuntarily the normal little child begins to attend to anything that astonishes it, or awakes curiosity (which is a kind of wonder). By-and-bye teachers will begin to make great demands on this faculty of Attention. They realize that on its development the whole mental life mainly depends. But indeed they might go further than this—for the moral and spiritual life also depend very largely on the faculty of attention.

Attention is at last voluntary. But voluntary attention cannot of cause be developed from nothing. It springs out of the involuntary as the stem springs from the root, or the root from the stem. So it is important that in the beginning of life the emotion called Wonder should not be dispelled too quickly, nor too often. The child should not be distracted by having his attention drawn to a great many things.

Neither should he be interrupted in the contemplation of any harmless object, animal, or process which has aroused his involuntary attention.

Sometimes children are attracted by scenes and objects which grown-up people do not consider at all absorbing or instructive. This does not prove that the child will derive no benefit from attending to them. I have in my mind now a little girl of three, whose great delight it was to steal into a laundry on washing days. Finger in mouth, she gazed at the dingy clothes turning white as the laundry women rubbed, and lifted, and wrung, and at the darkening water which had affected this great change. This power of the water appeared very wonderful to her.

Water made clothes clean! If a goddess had risen out of the soap-suds it could not have been more amazing! But now the tubs are suddenly emptied. The windows are opened for a few moments to let the steam escape; and the laundry-women, their linen skirts tucked up, fill the tubs again and begin to lift, and roll and wring the snowy linen in cold blue water. At this point the little one's pleasure always became so keen that she took her finger out of her mouth, and running across the damp floor, stood on tip-toe, and embraced one of the tubs with her arms.

Whereupon she was summarily banished. In later

years she displayed a wonderful power of washing clothes so that they looked like snow-drifts. No one ever gave her a lesson. There was no occasion for her to wash, yet she perfectly understood, and occasionally practised, the art of a laundry woman. "How has she learned?" her mother often asked wonderingly.

Doubtless she learned through giving attention—involuntary attention—attention sustained by emotion.

This faculty is the basis of all success.

And it is, let it be said once more, the first condition, not merely of mental, but also of moral advance.

This little girl who had such delight in looking on at washing was not at all attentive to the cat. True she played with him a great deal, and knew that he had white feet and a black coat. But she had not yet realized very clearly that he had feelings, for she carried him squeezed under her arm, pulled his tail, and let him drop heedlessly. She did all this, however, not because she was naturally unkind, but because she had given attention as yet to only a very few states of existence.

Many grown-up people act in the same way—not merely to cats, but to their fellow-men and women. The American looks on the Mongol and sees no reason why he should live. He once looked on the Negro and saw no reason why he should not suffer. A certain type of Anglo-Saxon looks at the dark, delicate

Indian and feels only contempt. That is because they have never given any attention to the living Negro—much less to the silent son of the miraculous East! If they had attended to him, they would have thrilled in the presence of one who embodied for them the philosophies of the Orient, the wisdom of the twice-born. But as it is they do not even realize that the Indian or American is actually alive, any more than the little girl realizes that her cat is suffering. There is no subject which may be sifted from all others and called Moral Training. For our moral code tosses on the ebbing and flowing tide of our sympathy, and sympathy itself is bounded by knowledge and power of attention, as the waves are bounded by the sea-wall.

We must begin then by training the child to attend to living creatures—to the world of animals and the world of men.

The big, modern, elementary school, is not, we must confess an ideal place in which to make acquaintance with animal life. For, in order to attend with great pleasure to a living creature, one must see it in its own natural home. The fields, the woods and meadows, and the brook-sides are the best school-rooms! But limited as we are by climatic and other conditions we are often obliged to teach and learn in less delightful places.

Sometimes a happy conjunction of circumstances allows a child, or even a whole village-full of children to enjoy the advantages of the ideal school, and gives them also the sympathetic teacher who can open their eyes to the beauty of their own fields and their inhabitants. On the borders of a moorland district in Yorkshire stands a school-house—a broad, low building, with its back to the heathery wolds, but its front-windows looking out on a wide expanse of grassy slopes flanked by wooded hills. The wall that encloses the playground is not bare and new, but old and moss-grown, and overlooked by a range of wooden outhouses. Pigeons fly out from dove-cot and alight in the playground, fan-tailed pigeons, pouters, and others of a rarer breed. They are so tame that they perch on the stranger's shoulder and run close by his feet. No wonder. They have been fed, and caressed, and loved by children everyone of whom considers herself in the light of a protector. A little grey donkey stands with his nose on the fence of the field opposite. And across the grass-plot toils a big tortoise with a string attached to a leg, which does not prevent him from making long pilgrimages across the road and into the shrubbery at the foot of the valley. Living creatures—some lovely, some curious, inhabit the schoolmaster's garden; and sometimes a child goes up the narrow path, with

sparkling eyes, and walking quickly. A new animal is to be introduced! It is natural to suppose that children enjoying such educational advantages should learn a great deal about animals. But that is only a minor "result." The more important result is a moral one. Through attending to creatures—watching them, tending them, loving them, and at last painting or drawing pictures of them, the child escapes from the cruel instinct that once led him to kill or torture.

Every emotion is accompanied by a flow of blood to the brain. Every intellectual occupation is accompanied by a flow of blood to the same organ. When the blood-flow to what we call the higher centres is abundant, it must be withdrawn from the lower. A child is disciplined therefore by everything that he attends to.

Artificial or imposed discipline is a poor thing in comparison. Here nothing is destroyed—but rather transformed. The child is literally working out his own transformation.

It is often difficult to introduce children to the world of animals. There is another task which is also difficult, perhaps impossible, but always imperative. They must be trained to attend to one another, and perhaps in the end even to love one another. If we have not this goal in view—however distant—it is a mockery

to build schools at all. We know by sad experience that few grown-up people can obey the "new commandment." They are not ready—yet. But long before we gain perfect faith and power in obedience, we believe in the Law. In no school, in no church does the preacher or teacher refuse to say, "Love one another."

It might be well if, before expecting obedience to such a command, we should first remove as much as possible all that causes the children to hate, dislike, despise, or avoid one another.

In the first place, *all* the children should be clean.

It is only in modern days that the need of baths began to be seriously felt by the people of this country. Our fore-fathers washed very little. The Romans had a magnificent system of water carriage, and in the large baths the people met as in a great market-place, carrying on discussions and settling business near the cool plashing waters that rose over the marble steps. Water was for them a luxury as well as a necessity, a thing indispensable for health, but also for pleasure.

The subtle Easterns regarded it more seriously. They looked on washing as a devotional exercise. To be holy one must be clean. Before prayer came ablution. Thus the idea of water was intimately connected in their minds with the idea of inner purity.

Even the Jews—the most worldly of all the religious Eastern nations—did not regard water merely as the means of external cleansing. Moses worked out a marvellous system of hygiene which he taught to the people *as a part of their religion.* But alas! modern Christians of even the most orthodox persuasion do not look upon washing as an integral part of the scheme of redemption—or allude to it, only in a vague, symbolic way—that is to say, in a way that divorces it from, instead of uniting it to, everyday life. Thus a large number of pious people are actually very dirty. "It is difficult to go near some of our people with the Holy Sacrament," said a priest the other day, "they are so covered with vermin." Thus we see that cleanliness, once a condition of holy life, is now held to be something quite secular and unimportant.

Yet it is not unimportant. Where water has no other spiritual meaning it signifies separation. Here, in a London park this morning, the baby-son of a wealthy house stood to look at another baby-boy playing on the grass. The child of wealth was lovely to see, with his soft, golden curls, his sweet blue eyes, and white garments. As lovely perhaps, under all the dirt and grime was the dark-eyed baby of the gutter. Those two gazed at one another earnestly. Then advancing with slow steps, each held out his tiny hand and grasped

the other's. It was very pretty. Even the nurse-maid (who was very particular) had not the heart to reprove her charge.

Suddenly the nursling of wealth released his hand and looked at it. A frown of disgust puckered his forehead.

"Nasty! nasty!" he cried out, and turned his back on his new friend, who stood gazing at him in bewildered consternation, quite unable to account for this sudden change.

The change was a very natural one, after all. The clean child was offended, not with his new friend—but with the dirt on the new friend's body. His own short experience of dainty life and cleanly habits, and the dispositions born of these, ran like a stream between him and his little brother of the gutter. But the gutter child saw no stream dividing them. He probably thought in his baby heart that his new friend was very unkind and very fickle. Water will always divide, if we do not allow *all* to use it—and love it.

Every new school should be furnished with a swimming-bath in the basement. Swimming as a mere physical exercise is of the first importance. For in swimming the vital organs—lungs, heart etc.—come well into play, and the whole system is braced and

strengthened. Moreover, all children—but especially English children—love the water. And as joy is the best stimulant, the exercise they take in the bath is taken under altogether favourable circumstances.

The duty of washing should be taught by example—and made easy by the presence of adequate appliances. There should be plenty of slipper-baths which the children should use before entering the swimming-bath. The hand-basins should be deep, and fitted to suit the height of the scholars. They should not be placed in one long range, but fitted in different parts of the building so that a child can wash his hands without making a journey or elbowing his way into a crowd. The duty of washing the hands before meals should be taught in the same spirit that one teaches a little child to say grace. Such observances are not empty ceremonials. They are vital and helpful aids to beautiful human life—as distinguished from lower brute life.

Having removed the barrier of dirt, parent or teacher should endeavour to lead the child to attend to his play-mates—to observe what is painful and what agreeable to them. If children and grown-up persons are often cruel, that is mainly because they do not attend sufficiently to the persons around them to know how their actions or words affect them. A child learns a

a great deal during his first years. And yet his cruelty—that is to say his ignorance—often surprises us. In order to illustrate this, Perez relates how a little boy of four, whose playmate had just died, was brought into the house of mourning. The poor, bereaved father, seeing his dead son's companion, burst into tears and lifted the child on his knee. The little fellow looked up into his face, and said eagerly, "Now that Paul is dead you will give me his drum and his wooden horse, won't you?" This child was neither ungenerous nor cold-hearted. He could be educated later through observation so that he would at last recoil in horror from the idea of inflicting such a wound. But to reproach him at the time for callousness merely because he remembered the drum and asked for it at a tragic moment, would have merely confused him.

Young children *are* often confused by the susceptibilities of their elders. They are as yet unused to the light of this world, and their eyes are accommodating themselves, but not quickly enough. They often appear unkind—they often appear untruthful. Yet all the time they are hurrying on, as it were, to overtake truth and gentleness. Attainment does not (as their elders suppose) always imply a moral advance, but rather mental development. Untruthfulness appears

to be common among children: insincerity is rare. "Truthfulness," writes Max Muller, "is the greatest luxury of all, the most expensive luxury in our life, and happy the man who has been able to enjoy it from his childhood." But if truth-telling is a luxury for grown-up people, it is a thing beyond the resources of a little child, who, as a matter of fact, has had no time to purchase it.

Sincere the reasonably well-born and nurtured child is—and guileless. But the impression the world makes on any child is other than that which it makes on the adult. His imagination is continually obscuring the horizon of the actual, so that he himself does not always know where his waking and dreaming lives begin or end. His whole life is a coming-forth out of chaos into consciousness. It is necessary therefore to be patient—and, above all, to meet his gravely uttered but obvious inaccuracies without suspicion, or imputation of any intention to deceive. Accuracy can be gained only by prolonged cultivation of the faculty of attention. And for this any lesson, but especially the science lessons, offer good opportunities. For in making the simplest experiment a child must *pay* attention as a debt and duty. The boy has to suppress a riotous stream of thoughts, to quell eager desires for play, to interrupt many involuntary move-

ments. By such discipline the impression grows clear, memory becomes more defined, and the moral sense becomes more delicate and more keen.

It is curious to watch the growing scrupulousness of some happily placed children, and with it the growing charm of the youthful personality. It seems as though they emerged and became visible to us, only in proportion to the growth of the power of attention and growing accuracy of expression. "It is not"—said a writer once, of the family of a scientist—"It is not merely that one learns to trust them. That goes without saying—they speak the truth. But the habit of careful observation and scrupulous report has induced in them a peculiar clearness and directness in intercourse, a subtile, very refined realism in expression, which makes me feel when I am with them as if I were seeing the world through excellent glasses, and for the first time thoroughly appreciating the spectacle."

These words bear evidence that truth-telling *is* a luxury, not merely to the person who speaks it, but to those who listen. It is a luxury not easily come by! It is the reward of vigilance—of attention—and also of sacrifice! Perhaps the most scrupulous, if not the most sincere, men are to be found in the ranks of the great modern scientist. They constantly deny

themselves the luxury of emphasis. They refuse themselves the pleasure (often well within their reach) of poetic utterance, in order that their words may express no more and no less than the truth. Thus truthfulness is, perhaps, less a luxury to him who gives than to him who receives. It is a debt which we owe one to another—but it is still a luxury, and it costs a great deal.

. . . . . .

"And is this all?" cries some reader. "Truthfulness, cleanliness, and kindness are excellent qualities. But is this all? What about direct religious and ethical training? You have spoken of certain habits or ways of life, but not of conscious life and its guiding principles and faith."

It is true that life itself *is* the great thing. One is reminded of this when one looks at a child. Some are born rich, and others are born poor, or ruined. But one is reminded also, that the child is not responsible for his own existence, or even for his own mental and moral tendencies. It is the parents—guided or unguided by principles or faith—who have stored up and transmitted the heritage he has been obliged to accept.

This heritage is not of course quite final. It may be modified—it may even be supplemented through

education and training. But even then the education must be one of influences, and the training one of habits.

The child is again exonerated you see—at least for a time. "Love your neighbour," we say to the criminal, to the undeveloped, to the waif of the street—but they do not obey. "Love your neighbour," we say to the child. But such an exhortation is idle enough. The main duty of parent or teacher is to make obedience to the higher law possible, and at last inevitable. And if any lesson or exercise does not forward this directly or indirectly it has no value whatsoever.

And yet early training is physiological, and concerned almost entirely with the development of the body. The unconscious impressions of infancy should be succeeded in the school by others—more vivid, more connected—that is all. The best geography lessons, the best history lessons, are those which appeal most strongly to the senses, which stir the imagination, waken the sympathy, and exercise, not merely the cerebral, but the sympathetic system. Drawing, writing, modelling, and every kind of manual training are important because they ensure a growth in motor control, a development of the basal sense of touch, a means of evolving in natural sequence and to full perfection the delicate network of fibres and cells

which are the physical basis of mental and spiritual life. Not only are the higher cerebral centres important, and the development and the finer tissues a condition of spiritual endowment—all the organs, all the tissues are concerned or represented in every action. For the organ of mind is an outgrowth from these. It unites these in a common bond, and is, as Hack Tuke tells us, a microcosm of the whole body. "It is a fine expression of Swedenborg's," observes this writer, "that the likeness or image of the greatest is represented, as in a mirror, in the least, and of the least in the greatest." And he adds: "Nor can anything be turned over *in the mind* that, if it please, may not be portrayed *in the extremes* by means of the fibres: for instance, in action by the muscles . . . There is a likeness of the brain in every fibre. The fibres carry with them the animus of the brain."

By a different route the great Scandinavian seer arrived at exactly the same conclusion as the modern physiologist. Both affirm that the development of the minutest corpuscle represents the same principle that works in the formation of the organ of mind; that the brain is in immediate relation to all the tissues and structure and affected by all that affects them. It is impossible therefore to deny that every lesson, and every experience, is physiological, and at the same

time ethical (or unethical). There are no "secular" subjects, if secular is understood to mean something that is out of all relation to conduct and morals. There is no "mental" training, if "mental" is understood to mean something outside the organism. All right training is physiological and has as its final aim the evolution of the ethical man or woman.

And it is not exhortation, but heritage and training that makes obedience to the highest possible and at last inevitable. Sadly, as from a prison-house, look forth on us the eyes of the children who have no power to obey, of the undeveloped man and woman who cannot resolve and accomplish. Sadly, indeed, we all look forth sometimes, and feel that our highest aspirations can never be realized, that our best impulses are balked, that the will is present more or less, but how to perform we know not. "I hope," said a little girl one day, "that I shall be good this morning. But I know that I cannot." We also know that we cannot be good, but only believe in goodness. We cannot live beautifully, or love our neighbour as ourself. We have not got the physical qualification for such a life. Fools call us hypocrites. There are very few hypocrites in the world—but the number of undeveloped persons is very great.

But the first years are years of opportunity. If during

those years good fundamental impressions are made, muscle and nerve is trained, dormant faculties roused, right habits formed, and the whole nervous system rendered capable of full exercise, and fine nutrition, then the *power* to do well is acquired. And it is *the power*, after all, that we are all looking for! "A perfect man," says a great writer, "is a man whose nervous system is perfectly nourished and exercised in all its ramifications."

The world of life opens out before us as we are prepared for it. It comes to meet us as we advance, with new power, and new mystery. We learn how Life extends her empire, not merely beyond the stars, but within the dust. How the scum on the pool is a-throb with life, and how, even within our own tissues, communities travail and triumph. We see that our own life is small as a ripple on the Ocean, yet full of mystery and power. We learn all this, and the child learns it, but the impression which all this makes on him or on us, the response and emotion it awakens depend mainly, *not on ourselves, but on others.*

Robert Burns thrilled in the stubbly field. The millionaire's son may traverse the whole globe without one throb of joy or wonder; and why? Because the ploughman was born rich, but the other was born *poor*. It is true that the wind blew in the roof on

the night of the poet's birth, and that was not a very serious matter, for the roof could be mended. But who can make good to a child the loss of vital capital by his own progenitors, or re-build the vault of an impoverished brain?

"But surely," you say, "we cannot shift all responsibility on to the shoulders of our parents. We must show even a child that he has some individual responsibility."

Rather we must lead him to see, in the fulness of time, how *stupendous* is his responsibility. For he must learn at last that the final consequences of his actions are to be borne, not by himself, but by others! More than one great modern writer has tried to show us how terrible it is to sow wild oats *in youth*. To sow wild oats in age is not so bad—for the aged heart, like the reaped field, is waiting only for the winter. But the youth is weaving the destiny of the innocent, and what *he* sows his children will reap. For ages parents have been educated through their children. They have been led on to make one sacrifice after another for their little ones, and have emerged from barbarism through continuous efforts prompted by growing love and pity. Through long years they now watch over them—and a large portion of their lives is absorbed in the duties and sacrifices prescribed

by love. But now the scientist warns us. "This is not enough. This, if it is all, may be all in vain." The sense of responsibility must be deepened and widened till it embraces early youth as well as maturity. Longer and longer periods of life must fall under the guidance and sway of Love if the race is to emerge from brutishness and aspire to ever-rising ideals of manhood or womanhood.

Thus the greatest responsibilities wait for the young child. And they must wait, but not too long. Being a child he cannot assume them; yet he must be educated through habit and example so that he will while he is still very young freely own and faithfully estimate them. Nor, of course, is he to be suffered to believe himself helpless, or allowed to regard himself as entirely irresponsible, even as a little child. Every lesson, if it is worth anything, is a method of showing him that he *has* power. Even in his play he learns that he can change things—that they yield to his touch and are conquered by his patience. As he grows older he becomes conscious, also, that he can change himself. "I was naughty this morning," said a child one night. "Then I was naughty all day." He made an observation which teachers and parents are constantly making—viz., that one evil action leads to another. Which means in other words that the body itself and

its dispositions are changed by every action—by every obscure choice, and feeble resistance or renunciation. Thus the child learns in a vague manner that he can widen or restrict his own consciousness, and diminish or increase his own power of self-control. The teacher is there to make this consciousness clear, to give it voice, so that the child may know that he is, after all, responsible *in some degree* for his own weakness.

In Western schools the sterner virtues, such as courage, industry, perseverance etc., are enforced in a practical, and whole-hearted way. Pluck, hardihood and determination distinguish our boys when they go out to fight their way in the world. They are wonderful colonists. They travel, and are not afraid of toil or adventure. And yet we, so fearless in many ways, are very timid with the higher axioms—as well we may be. They seem to threaten the ruder qualities by which we have won so much. We hardly dare to tell the children that, to the wisest and most thoughtful men, selfishness and greed appear as the symptoms of blindness if not of madness! Yet this timidity of ours is itself the result of weakness—and arrest!

We have seen how the little child, terrified by the spectacle of the world, becomes the victim of illusion.

The world is full of dangerous monsters for him—he is afraid where there is no real cause for fear, because he does not know the nature of things, nor see them in right proportion. Later the world looks different. And indeed as long as we progress, the aspect of things continues to change, the world is new every morning. As long as the nervous system continues to develop, the appearance of the world must continue to change. Has it ceased to change for us?—that is only because we have ceased to grow. But we are unjust to children if we do not allow them to know that, to the most highly developed men of our race, the fear of poverty or death, sordid aims, the desire for mere material wealth, and mere personal triumphs appear as monstrous and illusory as, to us average grown-up men and women, appear the phantoms and terrors of early childhood.

CHAPTER VII.

LITERATURE AND CHILDREN.

AT the first glance the phrase, "A Literature for Children", suggests something very like a contradiction in terms: for the desire for written or printed books belongs, not to childhood, but to maturity. The hero-god, prophet, poet, and priest are powerful during the youth of nations. The Poet is nearly always a Sublime Child. But the Hero as man of letters is, as Carlyle says, "a product of these new ages." He has appeared for men who read—indeed possibly for men who read a great deal too much! And he appeals, not to childhood and youth, but to maturity and age.

At this point many a mother will smile. For children read so much. Some of them will read ANYTHING. It is said that Balzac, when a very young child, read the Dictionary from beginning to end, having no other book at hand. Not a few children have been known to devour learned treatises, driving their milk-teeth into the rind of dogma. And how many thousands sit late in the firelight, or escape to dusty garrets to

devour stories of adventure. How many thousands more turn over with delight the pages of new illustrated books, and open eagerly the new number of their Child's Magazine. No wonder many a mother smiles to hear that the writer of books appeals only to the mature!

The book-loving child is, nevertheless, a very modern little person. It would be absurd, perhaps, to call him mature; but it is not at all absurd to assert that he is premature. Balzac reading the Old and New Testament at the age of five was a child, but he had advanced far already along the path of life. In "Louis Lambert"—who was Balzac himself—the great author of the "Human Comedy" wonders about his own childhood—tries to retrace his first footsteps. "Did this child's imagination," he asks, "comprehend the mysterious depths of the Scriptures? Could he already follow the flight of the spirit across the worlds? Was he enamoured of the romantic charms which abound in these oriental poems? Did his soul, in its first innocence, love the sublime religion which is set forth in these books?" The questions appear stupendous, more especially when we remember that the subject of them is a little child who has not reached his sixth year. Yet Balzac is obliged to answer them all in the affirmative. Certainly the little child was

something of a mystic, something of a poet, something of a priest: otherwise why should he read? Above all, why should he eagerly devour the Book of Books instead of the story of "Jack and the Beanstalk," or "Dick Whittington and his Cat"?

When a traveller (be he ever so small) arrives from a distant city, it is of no use to say to him: "YOU could not possibly have made the journey." Certainly he has made the journey. He is here to prove it. You may feel amazed, but there is no room for doubt.

"He has made it too rapidly," the solicitous mother will say: and perhaps she is right. But we have to admit at the outset that the wisest mother or teacher in the world cannot determine the speed at which a child's mind shall grow, or his thoughts travel. This is obvious to-day, when so many teachers and parents are in a hurry. It was more obvious in olden days when mothers did not make any undue haste. It was not an ambitious, but a simple-minded mother who found her child in the Temple, discussing great problems with the Doctors and asking them questions. Even the mother of the child who reads learned treatises in the garret, or in the field, is usually a simple-minded, lowly woman. She is amazed and disturbed, beholding how much has happened without her

knowledge, perceiving how little she may interfere in the mysterious development that is taking place at her side. Certainly she has never tried to discuss learned questions in baby-language with her son, or offered him simplified renderings of the Classics. Yet he is now busy, not with diluted extracts, but with originals. It is quite clear that a child does not learn to love great books by reading childish ones, nor by listening to expositions.

The instinct of the mother who would postpone rather than hasten the day of Books is therefore an admirable one. A very slight advance, a very low order of development is enough to ensure to any individual a certain love of reading. The most uneducated person in the world reads—a penny dreadful! But what ensures in childhood a sympathy with what is most sublime in the childhood of the race? Deeper sympathies, finer intuitions, fairer hopes, better culture. —How to secure these?—that is the question.

They are the birthright of some favoured children. And in many children happily the germs of them can be developed.

Two conditions of such development are Time and Space,—long days and wide horizons.

Nature appears almost anxious to secure these conditions for the young. For how long the little child's

days are! How endless his years. Life is comparatively short after one has passed one's seventh birthday: but before one has reached it every season is an age! During those first long seasons in that vast early world the child wakens—and dreams.

That world may be a noisy one—in that case he is distracted! or a base one, and then he is wronged! or a small one (too small for dreams or visions) and then he is hindered or restrained. It is said that great men come from the hills and the wildernesses. And this is not wonderful, for in such places the child-mind expands and opens itself to the influences of solemn and lovely nature in peace. There, indeed, the world becomes for the little one Immensity, and Time is endless. The child-heart brims with life which very often finds its expression in secret and involuntary worship. Alone on the Karroo the little hero of *The African Farm* made an altar of twelve stones and placed on it the mutton chop which was to have been his dinner. "Sure never since the beginning of the world was there so ragged and so small a priest." O yes! There have been thousands of priests, just as small, just as ragged. The great man is the exception. And yet he is great mainly because he feels very deeply, and expresses very powerfully the life of other men—of the average person. Many a small herd has wondered

and worshipped in silence. Is it only the child of genius who loves and marvels? To believe that one must have wonderfully little knowledge of the mute and shrouded life around us. "Unhappy the heart that has not loved in youth," is a Russian proverb. Unhappy, too, the man or woman who has never been poet or priest even in childhood.

The average child is happily both poet and priest. Were it otherwise there would be little enough hope of any moral or intellectual advance for the race. For poetry and worship are not childish things to be put away as we grow up, like toys; or conquered, like a lisp or a stammer. On the contrary, they represent all the original and potential wealth of the nature. Just as the active nerve-cell is developed from the bed of nucleated and supporting substance called neuroglia, so all the higher faculties of the mature being are developed from the wealth of stimulating and sustaining impressions that aroused the infant soul to love and wonder. But the first movements are certainly not in the direction of literature.

Even when the poet and priest are in abeyance the child of promise may show no love of letters. Gustave Flaubert was very slow in taking to books. He could barely read at the age of nine. But as a child he loved to *listen* to stories. He used to fix

his great blue eyes on the speaker, and remain for hours dreaming after the voice had ceased. Of what was he dreaming? Of the sense? Or of the sound? Probably of both: for human speech is a great deal more than the vehicle of information — a fact of which we are very conscious when we listen to a singer, but of which a child is conscious even when he listens to speech.

Was Gustave Flaubert the only child who loved to listen? Let mothers answer! How often have they told their little ones the same stories? They repeat them over and over, and the listener will not allow any tampering with the original. Grown-up people may be in search of far-fetched things. The child glances at the strange, but he loves the familiar. "This is mother," he says, pointing to every picture of a lady in his illustrated books. He is not always learning new things. His happiest moments, perhaps, are those when he is taking fuller possession of the old. It is one of the privileges of childhood—this of taking new possession. For him everything is new—even the sense of proprietorship, and every repetition is a kind of re-assurance. "Yes! This is mine," he feels. He has tightened his hold on life.

"A great pleasure the Greeks had beyond us," writes Addison, "was that they lived upon the spot

and within the verge of the poem they read. They could find out their own country in Homer, and had, every day, perhaps, in their sight the mountain or field where such an adventure happened, or such a battle was fought. And so even in books they found only a renewal of their own life, a means of rendering clearer and dearer the impressions of childhood and youth." This young nation read, not to get new information (after all, only a comparatively small number read with that object even to-day), but to get a new baptism of feeling.

"Ah! But what a long time this education in feeling lasts!" cries the modern parent. And their thoughts fly to the long syllabus! Oh, in these days one must learn so much. Competition grows keener in every field of labour—examinations more difficult—the standard of requirements mounts till one grows giddy in looking at it.

Many parents of *all* classes are disturbed, but the working-class parent is indignant. "What!" he cries. "My child cannot get on with his learning when he is little! But what does this mean? I send him to school at the age of three or four in order that he may leave early. At twelve he must earn his living. Time!—it is very well to speak of time. But Time is *Money!*"

To such impatient parents it will be a comfort to

learn that when sensation is ripe, thought is rapid. Gustave Flaubert, standing for hours with his finger in his mouth, must have appeared to the superficial observer a very dull boy—perhaps an imbecile. Yet the dreaming boy began at last to develop very rapidly. There *appears* to be little transition in the different life-stages of many. This is because the earlier life is mute and veiled. It is generally believed that the country-bred child is duller than his town-bred cousin. And yet there could not be a greater fallacy! The country child is not behind the town child in intelligence. Ruskin points out that the peasant boy draws better than the cockney. To be sure he is more awkward and timid at first, but after a few lessons it becomes clear that he observes much more accurately than the town child. He *sees* more, though he is not so "sharp." Slowness does not always betoken dearth. Many a child who has passed as "dull," and who was never heard to say a clever thing, begins about the age of seven to show signs of vigorous mental growth. The teacher is surprised! Or perhaps the teacher is not surprised. For indeed there are thousands of teachers and parents who expect children of a certain age to make very rapid progress, and are surprised and disturbed if the sudden advance does not take place.

Scotland is one of the foremost countries in matters that concern education. Her plough-boys have studied as well as dreamed at the plough-tail. Her fisher-lads have been taught by University.men, and not a few of them have worked their way to the highest seats of learning. Yet there is, perhaps, no country where the works of Fröbel and Pestalozzi were less studied. Indeed, until quite recently, when groups of child-students began to investigate the deeper meanings of the teachings of the great German, the very word "Kindergarten" was almost unknown. What is the meaning of this? Fröbel was a great genius, and could not fail to be appreciated by any enlightened community. It is true. But though Fröbel began to write "The Education of Man", he did not finish his work. He did not even advance very far. The word "Kindergarten" is still associated with the thought of very young children. And in Scotland only a comparatively small number of very young children go to school *at all.* The other day an English visitor entering the large infant class-room of a Scottish school, looked round him wonderingly. "Where," he asked "are the infants?" He had seen babies of two and three in English infant class-rooms, and expected to find children of the same age in the schools of the Sister Country. But no! The Scottish 'infants' were

six, seven, and even eight years old. The babies were at home with their mothers, who (whatever may be said of home-discipline for older children in Scotland) give babies a great deal of liberty.

On the wild moorland you can sometimes meet the small, bare-footed, hardy little ones who do not learn their letters. It is difficult to pity them. They are so well off. True they wear scanty, and perhaps ragged, clothing. Their food is oat-bannocks, porridge, and perhaps skimmed milk. They make their own toys. But what a play-ground is this moor, with perhaps a Druid's temple in the wood, and a ruined shed or old cart buried somewhere in the gorse. The wind sweeps down from the hills. The cloud shadows pass over their dark sides. And the children sleep and waken, and play in peace and freedom . . . . .

This glorious life ends somewhat abruptly. Or, rather, it is interrupted in a rather stern fashion. At the age of seven or thereabout, the children go to school and learn to read and write. They have no coloured balls, no block-letters – nothing of the kind. There are no simple books with words of one and two syllables provided for them. Certainly not. They learn to read, and the mother or teacher at once puts into their hands the Book of Books. The first Book they read is the Book on which the greatest

minds have been nourished for ages. They may also read the "Pilgrim's Progress". And they have to learn the Catechism, of which the very first question is "What is the chief end of Man?" The mother sees that they learn it well, and assures them that if they do not understand it all now, it will come to them as they grow up. Meantime they have to learn, not merely things which they understand, but also things which they will puzzle over for years. An inestimable advantage. For thus the mind is not only nourished, but stimulated. The teacher is often at her wits' end to answer the children's questions, but she is not surprised to hear the children ask them. Nor does the mother wonder that her little boy, who could not read at all last year, is now reading the immortal poems of the East, or the finest allegory of the Ages. After all she is at home with miracles. She beholds every day swift transformations. The spring buds look green and hard for a time, but one leaves them to the sunshine and the air. Then one gets up one morning and finds that they have opened in the night. The flower has opened, and looks at the sun. The human mind also appears to open very swiftly at last—and looks at the sun.

And here, even as I write, comes testimony from a brilliant man of letters. Before he was asked how and

when he began to read he volunteered the following information!

"I began with Napier's "Peninsular War": then came the glamour of Anderson and Grimm: then I yielded to the spell of Bunyan and learned the "Pilgrim's Progress" almost by heart. Next came "Pickwick", Irving's "Tales of a Traveller", the "Old Curiosity Shop", and the "Scottish Cavaliers". All these and many more I read before I was nine, *although I had not learned to read until I was turned eight.*

This child was not town-bred, and though he was sent to school he played truant very often. He liked "to climb the hillsides, to dream over the hill-streams, to wonder at the stately and sombre firs, and to listen to the wild bee's hum." If greater books had been written than any that have ever been written such a child would read them. The modern child of eight or nine is, in many respects, a very advanced being. If he knows little of the grown-up person's trials and temptations, he knows something of his highest aspirations. If he is reserved with the average man, he is at home with the Seer and the Poet: therefore, as the writer already quoted declares, "It is a mistake to suppose that literary spoon-meat is suitable for young digestions. Many a milk-tooth has the cunning

to draw the juices from the strong man's banquet of the standard authors. Any pure literature is literature for the young. Any good book is a child's book if the child can love and learn from it." And he proceeds—as if in haste to secure variety—"Dickens, Thackeray, Scott, romances of pirates, Red Indians, and battles, Macaulay of the Essays and the Lays of Rome, White of Selborne, Hershell the Astronomer, Carlyle, Sterne, Montaigne, Lear's Nonsense Songs and Stories, Stevenson's "Prince Otto" and "Treasure Island," "Percy's Reliques," "Lorna Doone," "Huckleberry Finn," "Tom Sawyer," "Robinson Crusoe," and poetry for those whose palates can appreciate the delicate wild wine and golden apples of the Muses."

"Has second-rate literature then no uses?" Some reader asks incredulously. Yes, certainly it has uses—second-hand uses. A great deal of talent goes to-day to the writing of ephemeral articles and essays—and many of these have a wholesome and elevating effect. A great many good things die daily. And it would be sad to witness the daily flowing-away of the effervescing wit and subtle graces that adorn a hundred leaderettes if one did not know that this talent is not lost after all—since it raises (more or less) the standard taste in literature. But newspapers, magazines, the best kind of second-rate literature are

for grown-up people. Grown-up people, if they have read the best, may be able to use it, and to know its right value. *If they have read the best.* For the best is the touchstone.

But for the child the testing and measuring time is not yet. He has to *find* his touchstone.

And this is why the finest literature should be the only Literature for Children.

CHAPTER VIII.

THE FEEBLE-MINDED CHILD.

ONE evening a School Board candidate was addressing a meeting of rate-payers, when, suddenly, a young, good-looking woman arose and, in a shrill voice, interrupted him.

"I don't think much of you," she cried, shaking her fist angrily,—"nor of the people you work with. I send my child to school,—and what do the other scholars say? 'Boo!' they say, 'he's in the idiot's class!' There's language for you. You allow that, and yet you think yourselves clever people."

And the young woman stamped her foot, settled her hat, and, turning her back on candidate and audience, marched out of the room.

After all, she had a real grievance. Her child had been called an idiot. Now, although several large special classes had been opened in the city, and the need for starting others had become apparent, not a single idiot had been enrolled, nor was there a single candidate who could be classed among the hapless beings

who have no relations with the human family. [1] To relegate any creature to a lower category than that to which he belongs is certainly an injustice of the grossest kind.

Moreover, one can hardly say even of the most hapless creature, "He is an absolute idiot." The great majority of even congenital "idiots" is capable of education. The demented child—or child who has lost faculties which he once possessed—bears in his face the traces of his origin—a reminder that he belongs, in spite of his misfortunes, to the human family. And among all those hapless beings no two are exactly alike. Each is, after all, an individual with specific traits and peculiarities all his own. And if this is true even of the most unfortunate and ill-endowed, much more strikingly is it true of those who cannot be classed as idiot, imbecile, or demented—but who come under the vast vague category of the "feeble-minded." Enter a room where a number of "special" children are having a lesson and you will see that in order to learn anything you must study them individually. Here, for example, is a bright-looking girl of ten with regular features. Why is she here? There appears to be no reason why she should enter the "special" class. But

[1] The word 'idiot' comes from the Greek ἰδιος which means alone—solitary—incapable of communication with others.

after a little time you begin to note the quick, furtive glance, the restless movements, and you learn from the teacher that this child is what is known as a "moral imbecile." Here is a strongly-built, reliable-looking boy with a bullet head. He answers your questions intelligently, is quiet, diligent, and obedient. Formerly he attended the ordinary classes, but could not keep up with the others. Now he is making steady progress, and will probable grow up to be a useful and contented man. Plainly this boy is far removed from imbecility. He belongs to the class which Seguin called "les arriérés." On the next form, however, sits a very different subject—a boy of twelve. His face is asymmetrical, which is probably due to certain anomalies of the sutures at the base of the skull. The forehead is deeply lined, and the furrows work restlessly. The mouth is open, displaying decayed and crowded teeth, and the palate and roof of the mouth are narrow. The ears are large and ill-shapen, with small adhering lobes. And the fingers of the cold blue hands are misshapen, with coarse, broken nails. Here, in short, is every sign of degeneracy. This boy speaks very indistinctly and is quite unable to articulate certain sounds on account of the malformation of the palate.

By his side sits a younger boy, His head is very

small and pointed (acrocephalic); the face, too, is small, more especially the receding chin. This boy speaks perfectly well, and the teacher calls on him to recite a poem. The boy gets through this performance very creditably. But if you question him you will find that he understands very little of what he has said. Near him is a big girl of fourteen, who presents a woful appearance. Her head is well shaped, and her face is almost comely, but her large eyes have a vague and mournful look and are brimming with tears. She suffers little probably, and yet this face confronts you always like the symbol of an endless sorrow. She is the daughter of intelligent people, but her father was a drunkard. Now glance at this little boy of eight. His limbs are crooked, his legs are so bowed, indeed, that he can hardly walk. The frail body seems to sink between the shoulders, and the face is old and wrinkled. Yet the eyes are not wanting in intelligence. He is the victim of wrong feeding. He had to suck bread and dripping instead of milk when he was five months old, and now behold him—one of the vast army of maimed and incapables. The little girl by his side appears to be about ten years old, but she has the face of a woman. She is twenty-three years old. Within the past year she has grown a little as the result of thyroid feeding.

Here you see is a class of which no two members are in the same condition. Each child has to be dealt with as an individual. Of course every child is in reality an individual,—should be dealt with as such. The average child is not educated by the teacher who manages a class of 60 or 70. But the average child can help himself. He can, in a great measure, dispense with his teacher; if a child has any special gift it will probably develop in spite of adverse circumstances. But the children of the special class are dependent. They are not destitute of intelligence, but the possibility of development depends, not on themselves, but on others.

We have seen that there is no class of human beings who may be called "idiots" as we call lame people "cripples". Still less is the "feeble-minded" child a creature to be absolutely separated from all other children. There is no sharp dividing line marking "feeble-minded" people on one side, and bright persons on the other, for the average and the gifted person sometimes show signs of degeneracy. And yet it is striking and very touching to pass from the ordinary school, where the mental processes are rapid, and the current of life runs swift and strong, into the class-room for "special" children, where so many barriers seem to check progress, and where every little traveller on the

highway of learning seems to make headway painfully, like a bird flying with a broken wing.

The first question that suggests itself as we stand before them is, "What are the causes?" In some cases the cause is an accidental one. A fall, a blow on the head, a severe illness, bad air, bad or unsuitable food (as in the case of the ricketty child described above). Any one of these may transform a promising child of good type into a hopelessly trammelled and ruined little creature whom it is almost impossible to educate. For brain disease in childhood often leaves its victim in a more helpless condition than that of the degenerate. The latter is like a rude web which may be worked into a useful material. But the former is like a finer material spoiled.

Under the head of accidental or acquired defects may range the arrests of development induced by frights, falls, blows etc. sustained by the mother before the birth of children. Such accidents may result in diseases and defects which proclaim themselves only when the child has arrived at the age of two, or even later.

But all are not the victims of accident. Some, to use the phrase of a certain doctor, "were unfortunate in the choice of their parents." Every child must accept his physical and intellectual heritage.

Some are born rich, some poor, and some ruined. The degenerate child is born poor; yet he is not always descended from a poor stock. It is easy for a rich man to lose all his money; and it is almost easier for a richly endowed, highly developed being to lose the highest, and therefore most lately acquired, gifts. Descent and decline are always easy. A morbid affection which seems slight in one parent may re-appear (thanks to the many obscure causes through which transmission is reinforced) with much graver symptoms in the son, while the third generation may include more than one profound "idiot." Moreover, as we have seen in the case of the weeping girl, acquired evil habits, or perhaps a single lapse on the part of a parent, may have as its consequence the complete and hopeless ruin of the offspring. Thus the feeble-minded child may be the son or daughter of intelligent persons from whom, none the less, he has inherited a disorganized brain.

The whole question of heredity is still wrapped in mystery. True, a great many curious facts have been discovered, but the explanation of these is still far to seek. It is pretty well established that in the matter of moral and intellectual endowment daughters inherit mainly from the father, and sons from the mother. Thus it is rare to find the son of a great

man equal or excel his father; but the daughters, and the sons of daughters usually inherit the genius or ability of an eminent man. On the other hand, the illustrious man inherits obviously from his mother. So the complaint of those who declare that woman has lost her intellectual powers because many generations of women have been excluded from mental pursuits, has no support at all from the physiologist, since women from time immemorial have been coming into their fathers' rather than into their mothers' mental heritage. It is true, none the less, that the influence of women on their offspring, both male and female, is, in some respects, greater than that of men. Disease, weakness, nervous disorders, and morbid tendencies are transmitted more directly through the mother. And no one can fail to note that while the father of a feeble-minded child seldom presents any symptoms of mental weakness, the mother is often found to be below the average in intelligence.

Feeble-minded women often marry young, and have large families. As young girls they are often attractive, naïve, talkative, and have, to quote the words of an observant teacher, "all their mental gifts in the shop-window." Sometimes a feeble-minded child inherits this garrulousness, and then the mother is quite convinced that he or she is a talented creature. For

example: Here is a girl called "Emily Ann"—unquestionably feeble-minded, but with an extraordinary facility of speech. She no sooner enters a room than she begins to pour forth a flood of words to the astonishment of all. Her mother, who is very proud of her, listens with great joy and pride. It never occurs to her to question the superiority of her girl's abilities. Many mothers resemble her in this. They will admit that a child is delicate. They will give long accounts of his illnesses and peculiarities, but they always end by saying that "he is clever at home," or that "he would learn fast enough if the teacher would let him."

Sometimes the feeble-minded child *does* learn quickly. He begins to write a beautiful hand and to read as well as speak fluently; so that the superintendent or inspector feels inclined to advise that he be sent into the ordinary school. A certain number have indeed left the special class and gone back to learn with average children.

A small number of these successful ones are not feeble-minded at all—but merely slow. As for the others who leave the special class merely because they have learned to read or write, it is certain that their removal was ill-advised.

The power to read or write does not prove that a child possesses average ability.

Well, here in a small class you have a great variety of powers, weaknesses, defects, difficulties, and needs. Here is the child of intelligent though, alas! guilty parents, and the child of the simple-minded. Here is the degenerate with stigma which cannot be mistaken, and the smiling, bright-eyed child whose fair exterior conceals tragedy and ruin. Here is the baby of four or five, and here the woman of twenty-three who will always be a child. What kind of treatment and education are these to share?

In the first place the special-class centre should be established at a school where the ventilation is good, the outside air pure, and where there is a swimming bath, with slipper-baths, douche, and dressing-closets. The doctor should be consulted as to the kind of bath—douche, salt water, sulphur, or ordinary fresh water—desirable for each pupil. Moreover, the authorities should recognize that the bath-room is in reality a class-room—and a class-room where the teacher has special facilities for carrying on her work.

"What virtue in mere washing!" cried Carlyle.

Yes, what virtue in mere washing! What virtue in friction! And last, but not least, what virtue in mere dressing and undressing! In Dr. Francis Warner's excellent book, "The Children: how to study them", we get a series of hand and finger movements which

may be used in every centre with beneficial effects. Flexion and prehensile movements, reversed movement, and ordinary drill may be included with advantage in any system of physical training for the feeble-minded. But it is well to remember that many of the common and necessary acts of life imply various and adapted movements. To put on one's stockings, to lace one's boots are actions which the ordinary person performs every morning almost unconsciously. But that these are in reality very complicated exercises is proved by the fact that the so-called "idiot" can perform them only after a training extending over many years! For the same reason that we give a feeble-minded child exercises with poles or balls in the gymnasium, we must teach him to use his knife and fork, grasp his tumbler, lace his boots, and fasten his tie. The former is artificial drill which may be very desirable. The latter exercises are natural gymnastics. They are undertaken for the accomplishment of practical ends—but they do not therefore lose all educational value!

Some feeble-minded pupils perform these complicated movements perfectly. They are able even to catch and throw a ball deftly, and are quick perhaps to learn the finer movements involved in writing etc. Such children belong to that section of the human family

which some people have been pleased to call *the motors*, or persons who learn through, and have a peculiar facility in, *movement*. An American writer describes an Indian whom he taught to read, and who, even after he had learned, was obliged to make the movements necessary in writing in order to distinguish the letters. This Indian was a *motor*. There are other persons for whom the sense of hearing seems to be the great medium of mental life—whose mental life is built up mainly from aural impressions and representations. The four Vedas contain 100,000 verses! Certain Indian students learn them all, but not from MSS.—no!—but from *the mouth of a properly qualified teacher:* they are *auditives* of a high order. Then there are *visuals*, or persons who learn mainly through what they SEE. It is probable that these are more numerous to-day, when so much is learned by reading and looking at printed symbols, than they were in olden days when instruction was for the most part oral. However that may be, in every class—in the "special" class as well as in others—you will probably find children belonging to these various orders. Indeed in the "special" class these orders are very distinct. Thus it is common to find a feeble-minded child who can sing and has a good memory for sounds, and another who can copy well, and a third who makes

rapid, and precise movements—and this peculiar power is the more conspicuous because it seems to be related to nothing else, to stand alone like a column among ruins. It is around this column, however, that the work of construction must begin.

For example: In a school for "idiot" children you will sometimes come across a child who seems to live in a whirlwind. He tears his clothes, knocks things from his desk, gets down with obvious pleasure to pick them up again, and returns to his seat only to spring up again on the smallest pretext, or on no pretext whatever. Of course all children love movement, and ought to have much freedom. But this big boy, who is far more restless and aimlessly restless than a child of two, is evidently a "motor" of lowly type. He is spending his energy quite uselessly. But this energy is precious and can be turned to account. Not only can it be directed to practical ends, but it may be used as a means of new development. [1]

First of all we have to allow the child to make large directed movements. He may be set to sweep,

[1] This does not mean that the child is to practise exercises which are easy to him. For example: If a child can throw a ball deftly, a teacher must not keep him at such work. She must associate ball-throwing with some other exercise in which the activity of weaker centres of the brain are concerned. Simple ball-throwing is, on the other hand, a good exercise for those whose motor power is small and little differentiated.

carry, lift weights etc. In the class-room as well as in the play-ground or home his energy should be allowed an outlet. Moreover, his lessons ought to consist largely of adapted movement. Reading, Writing, Arithmetic are motor exercises quite as much as the training in the Gymnasium, or the manual labour in the home. Séguin, the pioneer-teacher of the feeble-minded furnished his school so that almost every article could serve as a writing surface. He did this so as to facilitate training through movements—in order to press into service, as it were, in every lesson the developing muscular sense, and insure the co-operation of the muscular memory. Reading and Writing were taught as twin subjects. The pupil had to write in order to learn to read. We have an example of the advantages of this method in the case of the poor Indian who depended, for his mastery of the alphabet, almost entirely on the Muscular Sense and Memory. Let us now take the subject of Arithmetic—of simple calculation and measurement.

Suppose the teacher wishes to teach his feeble-minded children the tables of Weights and Measures. He takes a book, or card, and makes them look at the tables or recite them. The auditives will soon catch the sounds and repeat them parrot-like; the visuals can copy what they have seen; and the motors,

caring little for the movements made in mere recitation, will be very troublesome throughout the lesson. But he now puts all the cards and books away. He sets forth pint and quart jugs and lets the children fill and empty them. He takes out weights and a balance, and lets them *feel* what a lb. is by lifting it. When they have become used to handling the pots and lifting the weights, he lets them find out by experiment how many pints will go into a quart jug, and how many ounces will balance half a lb. In another part of the room he sets the children to counting with real coins—and perhaps improvises a counter and installs a shopkeeper. The children gain gradually some idea of number. They cannot say the Multiplication table by heart, but when they assert that two and two make four they have some notion what this statement means. They do not merely memorize figures. They learn to measure and calculate.

It is not the motor alone who is helped by the development of the muscular sense and memory. The feeble-minded of every degree and order depend in large measure on the training in movement—on the association of definite movements with aural and visual impressions. For, as we shall see by-and-bye, the great weakness of such children is that, owing to

vices of conformation, or arrest of one centre or another, the brain develops irregularly and the connexions are often very slight. For example—A child will learn to write and copy, who yet cannot remember sounds (or write to dictation). Or he will recognize an object very well, yet cannot associate it with any word, or learn its name. It is in the establishment of new associations, or the re-inforcement of feeble ones that progress consist.

The speech of feeble-minded children is often defective. Many suffer from adenoid growths—which can be easily removed—and are mouth-breathers. The first duty of a teacher in such cases is to report to the doctor, so that the simple operation of removing the growths can be made. She ought then to give breathing drill—or what is even better—see that the child has the exercise that induces right breathing —that he climbs, swims, runs, etc. If the lips hang down the child should be made to grip a ruler, to climb bars hand over hand, or he may have lip-exercises. Finally, lessons in articulation must be given.

Here again the pupil must learn, not by mere sound and imitation—but through the association of definite sounds with definite movements. The oral system by which the deaf learn to speak is equally adapted for the feeble-minded. Let the teacher make every

sound, with the appropriate movements, keeping the child in front of her, and require him to imitate her. At first this will be a difficult task. For it exacts attention on the part of the pupil. If necessary, one must let him feel the movements of the throat and tongue; and when he is weary of this the teacher should place him with his back to her knees, and, with a mirror in front of both, continue the exercises.

Séguin began by teaching not the vowels, but the consonants.

He then gave as an exercise the articulation of syllables composed of a vowel and a consonant as AH.

Then came lip-exercises. (This is not the order of nature. But though the race began with gutturals, it is not necessary for us to go back quite so far!)

Then double syllables such as pa-pa, and later isolated syllables and words.

As auditives are very fond of chattering, and form the bad habit of pronouncing words whose meanings they do not understand, it is not wise to let them learn recitations;[1] and, moreover, when they utter a word the teacher must try to see whether they associate it

[1] Just as some feeble-minded children can throw a ball deftly, others can speak fluently. To let these recite may be a perfectly useless exercise!

with anything, or know its meaning, and discourage its use until the meaning is learned.

. . . . . .

We see now why the word "idiot" is so sadly and variously suggestive. It means a creature who lives alone—cut off from the world. But why is the "idiot" alone? Mainly because the organs of his own body—the centres of his own brain are isolated. It is in virtue of closer and richer *associations* that the mental life of one person is higher than that of another. The physical basis of those associations are of course the cells of the higher centres, but also the system of connecting fibres that put these into communication. The highest connections are the last to be established. Flechzig affirms that the fibres connected with what he calls "the intellectual centres" are a month later in gaining the medullary sheath than are the fibres connecting the other centres. The brain of the feeble-minded child usually represents an unusual arrest—and consequent isolation. At one point or another the connecting fibres of the higher centres have failed to attain normal development. And therefore every exercise which tends to develop the power of association is peculiarly useful for him.

The average child can dispense with many things.

The gifted person is often impatient. "Ah! what a lot of trouble Pestalozzi gives himself," cried Dussault, "in order to show the children that they have a nose in the middle of their faces." Normal children learn almost unconsciously, and it is not necessary to analyse, still less to interrupt the rapid mental processes that take place in them every moment. For example. Here is a child who sees a bell for the first time. He touches it, looks at it, and finally listens to it ringing. Henceforward the word "bell" awakens in him various images which are so well *connected* that they seem to be but *one*. He no sooner hears the word "bell" than images of the sound, surface, form, etc. of a bell present themselves simultaneously. But here is another child—a feeble-minded child. Place the bell in front of *him*—let him touch it—hear it ring. His sense-organs are good. His eyes are excellent—so are his ears—and yet you find that he cannot quickly form any idea of the bell, nor *remember* what a bell is,—the sight of a bell to-morrow will not suggest to him the ringing, nor *vice versa*. For his impressions are disconnected, so that they leave no trace, or but a faint and formless trace in memory.

This is why his teacher must strive not merely to exercise the sense-organs, but to establish and strengthen associations between them. The teacher of "idiots"

makes the child touch an object, smell it, taste it, look at it. If the object is one from which sound can be educed, she strikes it so that the pupil may *hear*. Then she names it—gives the child the word, if necessary trains him to utter it. All this has to be gone through, not *once*, but many times. It is, perhaps, after many years of effort and training that the poor child begins to have connected, and at last fused impressions, and acquires a new kind of memory—of a higher kind that mere organic memory. But once he does acquire conscious memory he begins in some simple fashion to compare and to reason. All this is possible with the idiot. Much more is possible with a feeble-minded child.

Not that the word "Object-Lesson" is one to charm with! Formerly it was considered such. But now we have had our eyes opened—we have learned by sad experience that even good things degenerate in a stagnant atmosphere. "People do not know what a waste of time object-lessons are!" cried Bertrand. "And what deceptions they prepare for the teacher. They send the mind to sleep . . . and prepare for it *visions and dreams*": and again, "The Object-Lesson hypnotises the pupils"—All this may be true to-day. People dream over work when it is so difficult that they are in despair and attempt nothing. But they also dream over work which is too easy, so that they are

little occupied, and this is what often happens in the objectlesson. Just as baby literature is provided for vigorous little people who would enjoy reading masterpieces, so they are often asked to find obvious resemblance where they should look for fine distinctions. The lesson is often made too easy. The average child has a fund of mental energy which can be called into action, not by instruction, but through stimulus and self-dependence. This, in the day of large classes, we readily forget! Well, the feeble-minded child also has latent power in which we must sometimes show faith! For it is often more troublesome to let a child alone, than to teach him! He also should be left sometimes, as a northern man once observed, "to poozle things out for himself."

This does not mean, of course, that he is to be left early or long to his own resources. The feeble-minded differs from the average and gifted child mainly in this—that while the former may easily be ruined by too zealous assistance, the latter must inevitably lapse if not followed even into adult life by the help and care of others. The strong flame finds plenty of fuel in the open, and there blazes quickly up into a pillar of cloud or fire. But the flame that has been fanned on the broken altar of a faulty brain is easily blown out.

"Go forth now, and be a man," the teacher may

say without too much irony to many a boy of twelve or thirteen. But to feeble-minded girls of sixteen or seventeen the teacher cannot say this. For they will be children always. They grow up to find themselves exposed to new dangers, but alas! not to gain the power of escaping from them. Thus it is almost more necessary to follow them after they have attained adolescence with protection and surveillance than it is to teach and train them while they are very little.

If at the door of the school they are thrown on their own resources, it may very well happen that even the arts they have learned will prove a snare to them. They can read and write and use these powers as a cripple wears top-boots. They hide weakness from the eyes of the superficial observer, and the human faculties which have been partially developed in the reading or writing lesson are put to an overwhelming test, and fail like a small craft in a storm.

No. The outside world is not the place for the feeble-minded. The boys are soon discovered no matter how well they can write! And though some may by good chance find an opportunity to earn a living by manual labour, they are soon pushed aside. Men more highly endowed than they are supplanted by the mentally fit. As for the girls they are even more unfortunate. They are exposed to every kind of pitfall.

Deceptions and ruin wait for them. True they may be "fortunate" and marry early; but such an event is anything but fortunate for the race. The human embryo presents no greater morphological resemblance to the mother than to the father, but it is not the less peculiarly related to the mother *pathologically* —thanks to certain obscure causes originating in the function of what scientists call the "vitelline plasma". "If you want great men, you must find great mothers," said a statesman. And if we want to multiply degenerates we have but to facilitate the marriage of the feeble-minded girl.

Yet the human powers developed in the feeble-minded by training are precious—and may be for *themselves*, though not for their progeny, a means of security and salvation. This doubtful fire which has burst from the dark world of mere organic life can be kept alight—and can give warmth and light; it is easy in one sense to keep it alight. True, all the new acquirements are held on a slight tenure. But while they are held *at all* the lower nature is pretty sure to be in abeyance.

Moreover, example is powerful anywhere. In a home for the feeble-minded it is paramount. For these poor, disinherited members of our human family follow any initiative, accept any model, and yield to any

external influence. They have faith like children. Like children, too, they are happy in obedience to benign authority. Whatever their social rank they belong to a lowly order, and they find their own best interests, as well as that of others served in their performance of the lowlier tasks. For the women, household work; for the men field labour, or workshop tasks (of a mechanical kind) involving massive movement adapted to practical ends, such are the exercises best suited to them. Centuries ago the monks of Spain held classes for feeble-minded persons of all ranks. "We cure all," said one good father naïvely. "All save the nobles—who think themselves degraded by manual toil."

Thus Nature seems to establish her own social ranks and order, and to make promotion as well as happiness depend on faithfulness. But this does not of course mean that the helpless and feeble are to be converted into drudges. What love or capacity they have for literature, music, painting should be cherished and strengthened. Whatever love of beauty they possess should be continually stimulated and gratified. Outside is the great world which they are not able to enter. But the same influences that make life worth living in that larger world, that irradiate and sweeten and uplift it, exist for them also, though their minds, like smaller vessels, can contain but a lesser

share of woe or happiness. To live under benign influences, and to exercise what powers they possess are the rights of the feeble-minded.

That Homes where they may thus live shall be established in larger numbers must be the ardent wish, not merely of the friends of the feeble-minded, but of all lovers of the human race.

CHAPTER IX.

THE COST OF MENTAL EFFORT.

"I AM against the feeding of school-children out of the rates," said a philanthropist the other day. "Education is an artificial need for which the State is in a measure responsible, and which therefore the State may supply. But food is a natural want. Every parent ought to feed his, or her own child. They have virtually bound themselves to do so in becoming parents at all."

Such words are spoken every day, not by one man, but by many. Thousands who express no opinion at all on the subject of free dinners denounce State feeding of children by their own example and life. From time immemorial parents have provided food for their own children without asking for any assistance from the State. Even among the very poor there are not wanting men and women who display the greatest zeal and devotion in discharging the higher as well as the more elementary duties of parents. To take an example. The Master of a Higher Grade School is one day called out to see a father who has come to enrol his son—a boy of twelve or thirteen. The father is a slight, undergrown man with an income of 18*s*. per week, and five children to provide for out

of that. (Two of the children have, however, won scholarships, and one has a maintenance scholarship.) "What are you going to do with this boy?" asked the master. "Why," cries the father with sparkling eyes, "I am thinking of getting him into the Civil Service."

The struggle of such brave parents is shared by the children. While they are yet hardly out of their cradles they learn the meaning of suffering—and also of noble devotion. That is to say they have certain educational advantages which are quite out of the reach of those whose path is smoothed by expensive coaches and private tutors. The psychologist tells us that we must look for the causes of all that is normal or abnormal in a personality in the organism itself—in the movements and changes of all the parts and members and the relations of this—that the personality is indeed the equivalent of these movements and relations. A child or man does not therefore represent a number of distinct localities or functions bearing no relation to one another. The impressions he receives are not like so many messages travelling along isolated telegraph wires, and received as detached communications at isolated centres of the brain. On the contrary, every impression is like the movement of a thread which is inextricably entangled or rather inwoven with thousands of other threads. This movement not only

affects all the other threads—it may pull them all into a new pattern. What a child feels determines in some measure what he thinks. What he thinks reacts on the emotional Nature. So that one can never say, "Thus far shall this experience affect me and no further. It shall determine what I feel when I am walking in the fields; but it shall not affect me in the least when I am working in the study or the laboratory." For it is the same organism that lives and works in the field and the laboratory, and the mind that works in either place is the product, not of one set of movements and experiences, but of *all*. This being so no one can predict all the effects of any experience. A child whose parents have made sacrifices, and who is the witness of daily suffering endured for his sake, or who shares the joys, and anxieties of his elders almost from babyhood, is educated one would say, to feel sympathy with others. Yes! probably he will be more sympathetic. But this is not the only result of such education. A certain originality of viewing problems, a subtle insight--a mental power or peculiarity which gives a new advantage—these are in many cases the fruits of early struggles. Alas! There may be other results—not desirable, but the reverse. Samuel Johnson was full of sympathy for persons in great trouble! He knew very well what great trouble

meant; but he expressed only contempt for those who complained of what seemed to him minor evils. A still greater thinker was harsh at times to sufferers whom he could not understand. Such bitter fruits may follow a rugged spring-time—the evil surviving with the good, like strangling creepers about precious trees.

No system of education can be guaranteed to yield *only* the best results. But the great thinker, inventor, or even philanthropist is seldom a man who has been educated by rule, and at the expense of strangers. Much oftener he is one who has shared the strenuous life of poor and close kindred, felt the breezes of healthy human emotions, and been nurtured to health and fulness of stature under the shadow of home.

So all poor parents who educate their children at their own expense bestow on them certain advantages which they and their children are equally unconscious of giving or receiving, but which are not within the gift of the well-to-do. Indeed all poor parents who even feed their own offspring have a vital and permanent influence on their education. For the struggle or sacrifice of which the child is a witness, and which is undertaken for his sake, becomes a powerful influence in his life, and plays a great part in his intellectual as well as in his moral development. He receives all the new learning that comes to him in a "solvent

of love and gratitude." "There will always be some who will *choose* poverty," said a great writer. Doubtless this is true: there will always be some who can discover the pearl that is hidden in the folds of the garment of poverty. But those seekers are not parents. Fathers and mothers will hardly *choose* poverty, though they may nobly endure it. But even they learn at last that sacrifice brings recompense. Their sons and daughters enjoy peculiar educational advantages which are not within the gift of "The State."

There is, however, a certain number of parents in nearly every civilized country who cannot, or will not, assume even the lower responsibilities—who cannot, or will not, provide sufficient food for their offspring. It has been ascertained that in spite of the activity of many charitable agencies, thousands of children go breakfastless to school every morning. In face of these hungry little ones the State assumes responsibilities. "You have to be educated," it affirms. "That is my business. You have to learn such and such things—to pass such and such examinations."

"Well, the State has a right to compel them to attend school," cries the average rate-payer. "These are the very children who ought to be looked after. The schools are built. Education is provided. The children must be compelled to take the schooling that is offered to them."

Education is still regarded, you see, by the average rate-payer as a kind of commodity, which you can accept without any trouble when it is offered to you for nothing.

Yet a child in the class-room is certainly not in the position of a person who merely appropriates something which is handed to him gratis. To be sure the mental work of a little child appears to amount to nothing at all. He writes and reads. No one thinks seriously of such mental work as that? And yet to the unprepared organism every new exercise means work and very serious work. Even in order to learn one's A. B. C. one has to make many new movements, to hold one's attention fixed, to control and exercise oneself in various ways. All this means work, and work implies waste—and change!

All work has a swift and general effect on the organism. This fact we are very ready to admit—when the result of labour is formidable or obviously useful to us. The farmer or teamster is careful of his horses, he sees that they have sufficient food after hard labour. No mistress cuts down a servant's rations on washing days. But mental work influences the organism even more seriously than muscular labour. This is obvious from the fact that it affects, not merely the amount, but the chemical composition, of the secre-

tions. And yet few people calculate or even think about the effect of mental work. Many appear to think that mental work is only a kind of idleness. The reason is, perhaps, that the work of the ordinary student does not directly affect other people to any great extent. Everyone admits that the great surgeon, inventor, or even artist, must suffer more or less at times from mental overwork. But these great people do not take the public much into their confidence. Meantime the average man refuses to take the intellectual labour of school children very seriously. Everyone has to learn to read, write, and cipher. But what does all that amount to? The average man thinks of children's mental work as a kind of variation of child's play, and there, for him, the matter ends.

And yet children's work is no child's play—to them. In order to learn to write, for example, certain associations of delicate movements have to be established *for the first time*. This is done, perhaps rapidly, but never without difficulty. Of course the difficulty is not a thing to be feared or avoided. On the contrary, there is no real education possible where difficulties are continually smoothed away, and the need of independent effort denied. Yet it is well to remember that the first steps cost something. When the first

years of childhood are over, the visual, oral, and muscular memories co-operate and reinforce one another so that we perform many movements which in the beginning were learned with conscious and perhaps painful effort.

The mental work of children, which appears to many to cost nothing at all, has its price—and what is more, a fixed price. The effort of singing costs more than that of reading. Mental calculation produces quickening of respiration of from two to four breaths per minute. Some other exercises have a more serious influence (though not necessarily of course a harmful one). The quickened respiration subsides only gradually when the effort has ceased.

Below is a table, from a work by Messrs. Binet and Ferré, giving the rate of Respiration in various pupils before, during, and after intense intellectual labour.

SUBJECTS	DURATION OF WORK	RATE OF RESPIRATION BEFORE	DURING	AFTER
E	55 Seconds	10.5	13.5	12.1
E	90 „	12	15.1	13.1
C	80 „	7.5	7.3	10.5
C	150 „	9	9.1	9.5
Ci	42 „	7.5	10.5	9.5
Pi	40 „	15	18.1	12
Ph	60 „	11.5	15.1	13.1

(It may be here noted that children breathe more quickly than adults. A healthy grown-up person breathes from 16 to 18 times per minute. A child of six breathes from 20 to 26 times, and a child of two, from 35 to 50 times in the same period.)

People breathe, as they eat—in order to get some thing they need. If they did not need food or oxygen, they might never eat nor breathe at all. But the need is very urgent. Under stress of hunger poor Oliver Twist "asked for more". All the pauper boys were shocked, and so was Mr. Bumble. But even pauper boys help themselves to any oxygen that is going, without asking permission. And this is why oxygen becomes scarce even in schools where discipline is stern, if the windows are not opened, and the air-space is inadequate.

Here are a few more figures and facts from the work of Ferré and Binet.

A man spent an idle day. On this day of idleness he absorbed 234 gr. of Oxygen—throwing off 532 gr. of Carbon Dioxide.

The next day he engaged in Manual Work, and his demand for Oxygen increased, for he absorbed 294 gr. of Oxygen, liberating 884 gr. of CO_2.

It is, however, during sleep that loss is made good and the balance restored.

On the night that followed the idle day the man absorbed in sleep 474 gr. of Oxygen, and liberated 378 gr. of Carbon Dioxide.

But on the night following the working day he absorbed 659 gr. of Oxygen, and liberated 391 gr. of CO_2.

This worker made large movements, used his arms, went and came. But we have seen that the movements involved in mental labour, if not so obvious to the casual observer, are more rapid than coarser movements and alter more radically the composition of the tissues. Speck calculated the relative amount of oxygen absorbed in a very short period by a person engaging, not in muscular, but in mental labour.

		CO_2. liberated
In a State of Repose	0.456 gr. of O	0.553 gr.
During intellectual Labour	0.507 gr. of O	0.583 gr.

Speck was dealing with adults.

The adult has greater power of concentration than the child. But, on the other hand, the child is subject to more rapid changes through the activity of the emotional life. Every thought, every emotion, every sensation is accompanied *by a change in the composition of the substance of the brain.*

Below is a table showing the effect of mental Work on the Heart Action.

SUBJECTS	DURATION OF MENTAL WORK	HEART-ACTION BEFORE WORK	DURING	AFTER
E	90 Seconds	75	99	90.8
C	80 „	70	75	75.6
C	150 „	70	75	68
Pi	40 „	72	74	76
Ph	60 „	72	80	77
F	42 „	70	78	73

Such facts as these leave us no room to doubt that education means, not merely an interference with a child's mind, or with his habits and ways of thinking or acting—but with the organism itself. This interference is quite justifiable *as long as it is not injurious*. But when it becomes injurious the interference is nothing more nor less than an assault. Now in order to avoid inflicting injury, persons in authority must ascertain fully the nature and effects of the interference implied in compulsory education. Here, for example, is a class of sixty children assembled in a school-room. They are engaged, in what is for them, hard mental work. The first condition of health and safety is, of course, an abundant supply of pure air, provision for the rapid removal of the poisonous matter which we know is being

swiftly generated. Have the authorities considered what amount of oxygen is necessary for working children; or have they been content merely to determine what is required *for children in repose?* If they have thought only of what is needed by the child *at rest*, they are acting like masters who feed their hard-worked servants without any consideration for the labour exacted from them. And this is not merely unkind, it is unjustifiable.

And now we must consider another result of mental work—to wit, the increased demand for *food.*

Not that all students have a good appetite. On the contrary the appetite of many pupils dwindles away gradually as the school-year progresses, and disappears altogether at the approach of the examination! Binet found in the Ecole d' Institutrice d' Epinal the consumption of bread declined steadily from October to July. Then came the examination week with all its excitement and anxiety; and during *that* week the pupils ate less than at any period in the year. This, doubtless is a fair illustration of what happens in most schools. The testimony of parents and teachers alike tends to confirm the view that the later the term the smaller the appetite. Binet, however, was not satisfied with the information he had collected, so he began to test his conclusions in a new way. He collected figures

giving the rate of the diminution of weight after the examinations of pupils in the Normal School of Versailles. The pupils were weighed in May, and again after the examinations at the beginning of August. Of 20 pupils the weight of 12 diminished after the examinations.

Now it has been found that in prisons, homes, and other places where people are gathered together, the consumption of food does not diminish month by month from October to July. Neither do the inmates suddenly lose weight between May and August. Much less should working children lose weight or appetite!

To be sure, the "work" done by languid and anæmic children is inconsiderable—generally quite worthless. Nothing can come of nothing. Is it not wonderful how many proofs and reminders people need in order to be convinced of this? Little students who do not eat cannot go on working—for the question of nutrition is at the very base of all elementary education. Nutrition takes place when the vital force is paramount—that is to say when the vitality is high enough to overcome the chemical forces that oppose it. Now mental activity depends on nutrition just as a fisherman depends on the tides. When the tide is full in a great many interesting things may take place. For example. The branches that extend on either

side of the pyramidal cell of the human cortex are sometimes extended in living contact. But when? In times of ennui, fatigue, or restraint? No; at such times they languish apart. But *when the vitality is high* the interchange (which is the physical basis of a new moral and mental advance) takes place. If a child is merely rendered faint by his studies, how can the elements of a new life be elaborated in him?

Happily all students do not cease to make new demands even in the elementary schools. Here, for example, is a group of very hopeful children. They have known what hunger is all their lives, but never have they been so hungry as they are now. When they were very little they used to get scraps of food, and now and again, a good meal: and this was enough to allow them to live a free, careless life in the fields or alleys. But at last the School-Board officer got on their track. They were led into a big school and obliged to read, write, sing, calculate. Not one of these exercises but involves a quickening of all the life processes, a new expenditure at a definite rate of nervous energy and living tissue. Lo! At noon all the children are ravenously hungry. The thought that dinner is a movable feast—that there is no dinner to be had—is now a dreadful one! Yesterday's hunger was a mild thing compared with to-day's. What is to be

done? The State compels the children to work—it makes the demand for sustenance urgent, intolerable. But it does not compel parents to feed their children. Hence it is certain that to some of these hungry little ones free education is less of a boon than an outrage.

"I had the great good fortune to be very poor when I was a child," said a celebrated French doctor; "so poor that I could not go to school at all. If I had been sent to college it would probably have been the death of me." Probably the great doctor exaggerated: and yet it is certain that even the best intentions of the educationalist are often frustrated. The pupil falls ill, for example, and learns nothing at all. Or he becomes dull instead of bright by dint of learning. Or he seems to lose what was promising in his mind and character and to gain nothing new which compensates for that loss. Yes! the poor educationalist has experienced many disillusions, and stumbled on many a covered rock. But one fact has become pretty clear and it is this—*that mental work has consequences.* That it implies a new expenditure, involves new demands—and that it cannot be carried on successfully where the sources of life and strength are impoverished. In short, we have learned that the first conditions of education are—not new books and

copy-books, nor even new schools and specialists—but *an adequate Air and Food Supply.*

It is not necessary to enter here into the question how an adequate supply of food is to be secured for all. Various writers have indicated many grave reasons for believing that public subscriptions cannot do the work of parental love, that the State cannot supply all the educational advantages which contribute to full human development. None the less it is certain that when the State compels a hungry child to work, it is doing a thing which is, on moral grounds, indefensible. "If any shall not work, neither shall he eat," said the Apostle. But what of those who say to a child, "You shall work whether you eat or not." Long ago little workers were sent to the mills to toil all day for a small wage, but at least the wage did represent for them possible shelter and nourishment. Now they work in the school, not for any good that will come of it to-day, but mainly because of some advantage they will gain in future years. But the years to come are dim and distant. The needs of to-day are present and urgent. And the unfed child, receiving the violent bounty of an inexorable State, and standing daily between the parent who neglects, and the State which compels, has indeed but a slender chance of reaping any harvest in the future which

will compensate him for the sufferings of to-day. Such a child may be pardoned if he feels no thrill of gratitude even for the benevolent and public-spirited men who would set up the proverbial 'ladder' for him from the elementary school to the university. For what can education mean, for him, but a series of unreasonable demands: and what can the most progressive educationalist appear to him but a man who "lades him with burdens grievous to be borne."

CHAPTER X.

FATIGUE: NORMAL AND ABNORMAL.

"I AM tired," said a schoolboy, throwing himself down on the floor.

The mother raised her eyes and looked at him. Certainly the little fellow appeared exhausted. His limbs were stretched out limp and helpless, and his hands lay in a posture which cannot be simulated, and which is expressive of utter weariness. The face was pale, too, and the eyes dull.

Suddenly the mother rose and drew open a folding-door. A lively scene became visible. The inner room was brilliantly lighted and prepared for a party, Down the centre ran a long table covered with a snowy cloth, gay with fruit and flowers, and sparkling with glass and silver. In the distance rose a platform, festooned and curtained, and furnished with Chinese lanterns and picture screens.

"Oh, we are going to have a party," cried the child, springing suddenly to his feet. "A children's party!" he added, in a ringing voice, hurrying to the table and beginning to examine everything.

His mother followed him. "Where now is his fatigue?" she asked herself as he flew hither and thither, too eager and excited even to think of being dressed.

Every mother has been struck by instances of such rapid recuperation. Many, perhaps, wonder whether their children are not sometimes acting a little comedy when some pleasant expedition being proposed or some joyful event announced, all signs of weariness pass away. But the children are not acting. The secret of their swift recuperation in face of a pleasant surprise lies in the fact that human energy is not merely muscular, but cerebral. Fatigue, therefore, is cerebral, and depends on the state of the brain.

The little schoolboy believed himself tired. He believed also that it would be a good thing to go to bed. But the folding-doors opened. A rain of stimulating vibrations was despatched to his brain. These supplied the conditions for a new generation of energy, and awakened associations of pleasure. Instantly the circulation became quickened; the muscles, but now so limp, regained their tenacity; nutrition became more active—in short, the sum of vitality was raised.

Glance, now, for a moment at the tired workers of town or country on Bank Holiday. Last night they trudged home from the mill or workshop, pale, weary,

and dispirited. After a long day of monotonous work, the women set themselves to prepare for the morrow—perhaps baked, scrubbed—and at last went to bed exhausted. But here they are at the sea-side, and all trace of weariness is gone. Listen to the shrill voices of the women and the loud laughter of the men. They dance on the sands; they jostle each other on the pavement. They eat and drink noisily, and in the evening, when they start on the homeward journey, the platform is like a surging sea—the carriages seem as though they were charged, like the engine, with a motive force which must escape! Snatches of song burst out, interrupted by peals of uproarious laughter. Impossible to doubt that this torrent of human energy flows the more freely because some obscure hindrance has been temporarily removed.

This second example of very swift recuperation can be explained on the same grounds as the revival of the schoolboy. In order to understand either, we have only to look at a map of the human brain and consider its topography. To begin with, there are a great many centres—that is to say, places of specific activity and transformation. For example, there is one centre for the vision of words, but there is another for the writing of them. There is a centre for language; so differentiated is it that the power to say one word may

be lost, and the power to say all other words retained! In a kind of arch many motor centres are ranged. And these are believed by many neurologists to be not merely centres of movements, but centres, too, for the reception and record of innumerable sensations. And the sensory centres *par excellence*—the centres whose function it is merely to receive vibrations from the outer world—how extraordinary is their differentiation one from the other we may judge by remembering how little *one* sense can explain to us the meaning of another—what does sound tell us of form, or even touch of smell? It is plain that the cerebrum is the organ of innumerable functions and activities. And the life of every part depends on—what? On the food supply? Not primarily on that, though that is a necessity. Each part lives because it is stimulated through vibrations arriving from without. It is the *nervous* current which is the mother of energy. Never till we realize this can we understand either the nature of our power, or the process of its generation. We are bathed, day and night, in a sea of vibrations, which become nervous when they touch the surface of the body, and which are transformed into new movements and activities when they reach the grey matter of the cortex. Pass a brilliant colour before the eyes, and the nervous energy will be increased.

Grip a dynamometer while listening to martial strains from a band, and it will be seen that the energy rises and falls with the music. In dull surroundings the spirits fall, the energy appears to be very small, for large tracts of the brain are left unstimulated or but feebly stimulated. Thus the child who had been busy with what is called "brain work," but what, in reality, absorbed only a very small area of the brain, and the mill-hand who had been absorbed in a monotonous task for days and weeks, were both weary. Yet both were ready for new experiences, eager for new activities! Such weariness as theirs is abnormal. It is induced, not by activity, but by torpor—the inaction of large areas of the brain.

So much for *one* kind of fatigue—a kind of fatigue common enough among school children. It arises from a *dearth of impressions*. But there is another order of fatigue which takes its rise, not in a dearth, but in a plethora of impressions and sensations. Thousands know this order of fatigue very well, and, indeed, pass their lives in inducing it. The luxurious boudoir, concert-room, and banqueting-hall—what are they but places for the combination of all the means of pleasurable sensations? Hither fly the pleasure-seekers, always seeking for that of which they have had already more than enough. For one can no

more go on receiving impressions indefinitely than one can go on eating with no interval for digestion. What happens when one receives food? The first effects are all profitable and pleasurable. The digestive organs begin to act, the circulation is quickened, the vitality is raised. But, by-and-bye, when the eater has had enough, the taking of food is no longer healthful, but injurious. The digestive organs then become loaded, the heart's action is impeded, the blood-vessels distended. If the eater stopped eating in time, the food supply would have generated new energy, the energy might have been used in work, and a new pleasure higher than that of the glutton or gourmand would have then been enjoyed. Well, impressions are a kind of food. One can have too much of them. Monotony induces fatigue; but excess also induces fatigue. Everyone has heard of the poor Esquimaux who, being taken out to see the sights of London, returned sorrowful, weary, almost overwhelmed, and, when questioned, only shook his head, and answered: "Too much streets, too much houses, too much men, too much everything." An even more notable case of surfeit in the matter of impressions was that of a young man who, having been brought up in solitude, was suddenly introduced one day to the life and movement of a great city. The sudden

experience of so many new sensations and impressions almost paralyzed him. He walked about in a dazed way, looked vaguely at the people around him, and presently fell fast asleep. After a time, doubtless he grew accustomed to his new environment, worked, made friends, and came into possession of a larger consciousness. But this was possible only because he learned to assimilate, and also to reject much of that which, in the first moment, had overpowered him.

The pleasure-seeker is gorged with impressions and sensations which he does not translate into actions. He interrupts the chain of life's activities because one link is so bright. It is not the inferior person, or even the average person alone who loves pleasure. Everyone loves pleasure, but the greatest of all loves it most of all.

A great part of our lives is spent in seeking it; and indeed we do well to seek it, for without pleasure human life would cease to be human. The average man is a pleasure-seeker—more especially the average man in cities. For in cities, where one does not see the panorama of the clouds or the changes of the hills and plains, one has to *seek* pleasure in order to find it, and the love of pleasure is thus increased, more especially among idle or semi-idle people. So our concert rooms, dining halls, theatres are so many

feasts spread for the senses. We enter there to feel vibrations which we cannot enjoy elsewhere. But though the average man has to seek pleasure diligently, the great man need not take quite so much trouble. He has only to *cease working* in order to enjoy all the delight furnished by a rich conscious and sub-conscious life. That this in itself is a great temptation many have frankly admitted. Nearly all great men have worked hard. And nearly all have loved idleness. Alfieri had himself bound to his table—because, free, he could not endure to take the trouble of writing for a long time. Balzac lived like a Trappist—worked all night, ordered all his life so as to be able to get work out of himself! Yet never, perhaps, did a man exist who could better have enjoyed idleness. Goethe was a great worker—but he was more. Around us all plays a great invisible ocean, touching us, wrapping us round. We receive vibrations continually, which we may merely feel or which we may transform and restore. What an ineffable and illimitable Ocean was Life for Goethe. Yet he, like others, had to sail on that great sea, or be drifted away, and lost at last in deeper gulfs than other men. From the sparkling waters he saw the "Weib" rise who was Pleasure. She beckoned the Fisher. She sang to him. She talked to him, she drew him under and he was seen no more. Was not Goethe thinking

of himself when he wrote of the Fisher at rest beneath the smiling water? It is quite evident that he understood that there can be no pause in Life.

> Kannst du mich mit Genüss betrügen
> Das sei für mich der letzte Tag!...
> Dann mag die Todtenglocke schlagen
> Dann bist du deines Dienstes frei
> Die Uhr mag stehn, der Zeiger fallen
> Es sei die Zeit für mich Vorbei.

. . . . . .

Thus while many people are afraid to go on working, a considerable number are afraid to stop! On the one hand, we have all the victims of over-pressure—a great multitude! On the other, strenuous labourers—who work for *life*. Alas! For those who do not work for Life, but apparently for Death! Youthful students who suffer from headache, nervousness etc., and whose parents resign themselves, and begin to regard anæmia as a necessary evil connected with youth, just as they once regarded measles and scarlet fever as necessary evils connected with childhood. The victims too are resigned. And yet now and then a cry of revolt breaks from one of them. In the pages of "The Journal of Mental Science" there appeared, a few years ago, a parody of Thomas Hood's "Song of the Shirt!"

"O men with sisters dear,
O men with mothers and wives,
It is not school-books you're wearing out,
But school-girls' brains and lives.
Lesson on lesson and lesson
Till they make the scholar a fool,
Treading at once, with a double step,
The path of the grave and the school."

Sometimes a mother takes her daughter away from school, or a father locks up all the books, and orders his pale-faced children to play all day. So a certain number of the victims of over-pressure find relief.

And yet a certain number of persons do an enormous amount of mental work—*and dare not stop!* Others suffer very readily from over-pressure. THEY suffer very readily from a kind of cerebral congestion. They must work with the same regularity with which others must eat or sleep. The brain becomes congested (to use De Fleury's expression) at the same hour daily. If anything happens to prevent them from sitting down to their task they are distressed and miserable for the rest of the day. But if they may go on with their work all is well. No fear of over-pressure for them. Victor Hugo took one holiday of a month in a long life-time. What would have happened if he had been compelled to rest? The most crushing grief could not absorb him. Risks and cares, and even sickness could not

drain the sources of his energy. Not that he was much of an invalid.

Philosophers and thinkers are a long-lived race. We have only to recall the names of the most eminent thinkers of our own day and of past generations to be struck with the fact that they lived to be old. They were nearly all venerable as well as illustrious. Other men lived only while they were young. The fires of youth and maturity having died out in their hearts, existence became empty and colourless. But in the philosophers, the thinkers, the light and heat of youth were transformed into something yet more powerful and more resplendent. They went on from strength to strength and often produced their masterpieces in old age.

It is true that an old proverb runs, "Whom the gods love die young." But the beloved of the gods was usually a sublime poet or warrior—not a thinker.

"Yet even all thinkers are not venerable—do not flourish in a green, fruitful old age," you say. No. One remembers poor Heine—stretched on his mattress grave, and "increasing daily his knowledge of spinal disease." But could that small, shrunken body, twisted with pain, have lived so long if behind the paralysed eyelids there was an inactive brain? It is probable that a more sluggish man in a like case could not have

lived at all. The wild, delicate wit, effervescing like wine even at the last moment; the tact, and energy, and genius of the modern Hebrew poet—these were all that was left, but they resisted long and vanished at last unconquered. Oh no! An active brain does not kill. But it keeps alive. The victims of over-pressure suffer from "a vague disease" whose name they do not know, and whose origin they have not traced.

"Life," said Biehat, "is an *ensemble* of functions which resist death." (It is difficult to find an English word for "ensemble." Collection will not do, for "collection" does not suggest the living relation which exists between the members of one organism.) Where the functions are numerous and great the struggle for life will be intense and prolonged. The idiot is short-lived. The dullard sinks without great resistance into endless sleep. But the great thinker makes a brave fight. Disputes every inch of the ground and tastes tranquillity even in battle, the tranquillity that results, not from inertia, but from "mighty and equal antagonisms:" great activities, great repose.

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Waking life itself is a thing to which we are initiated gradually. The infant sleeps a great deal. Passive as is his waking life, he cannot support it for more

than an hour or two at a time. But as he grows older this waking life is stimulated by a rain of impressions. The brain grows rapidly. Waking life, once a vague dream in a deep sleep, begins to emerge from that sleep, to rend it aside like a dark curtain. For long and longer periods it holds sleep aloof: so that, whereas at the age of one month the child spent nearly all his time in sleep, at the age of 5 or 6 years he spend half his time in a state of activity and consciousness.

Of course "waking" is, after all, only a relative term. A great part of the waking life of the majority of persons is spent in a state of semi-activity, in so far as many of the higher functions are concerned. Even gifted persons pass a great deal of their time in what is called "day-dreaming." But certainly the "practical person," following some occupation which has become familiar to him and which he performs automatically has as little right as the dreamer to claim that he is fully awake. The usual condition of the average adult is one of semi-repose, just as the chronic state of an infant may be said to be sleep.

The amount of sleep necessary for any creature is in inverse ratio to the strength of consciousness. "Behold," says the Eastern poet, in an amazing song, "Behold, He that keepeth Israel shall neither slumber

nor sleep." Did Simeon Stylites stand for years on a pillar? Could Saint Francis work and fast for days. To us—victims of over-pressure!—it seems, impossible. Yet the great men of our own century have been light sleepers. They could take repose when they liked, and a little sleep restored them. Napoleon rarely slept for more than four hours in the twenty-four. "Seven hours of sleep," we say, "are enough for a woman—six for a man." We grow weary, not because we work hard, *but because we cannot continue to work hard enough.*

This fact becomes evident as we study the causes of fatigue. Why do people grow tired? Every schoolboy now learns that the feeling of fatigue is caused by the presence of poisonous substances in the blood. These poisons are generated by the active muscles and nerves, which, in the course of their activities, transform the foodstuffs into new and poisonous compounds, and fling them back as refuse into the blood stream. Now, within the body are living scavengers that free the blood of its poison by transforming it into new substances. If these function rapidly enough fatigue is prevented. If they cannot work hard and fast enough the condition known as "fatigue" is induced.

It is the poisonous substance which induces fatigue The question is simply—How to remove it? Teachers

and lecturers have simple ways of illustrating this. For example, they take a tortoise heart (which is alive, though the tortoise it once belonged to is dead) and fix a light lever to it by a thread in such a way that at each beat it pulls the lever up. The tortoise heart moves or works: it lives and works on the supply of food which it once had from the blood. But presently it is poisoned by the substance it generates in working. Is its strength gone beyond recall? No. The lecturer washes away the poisonous stuff, gives the heart food in the shape of salt and water, and it beats on again as vigorously as ever. Such experiments prove that the blood is not (as was once supposed) the life. That movement is life. It is the carrying, combining, dissolving, removing of myriad atoms and molecules that is involved in the toil of the poor drudge or the thought of the great seer.

Within the brain the greatest movement takes place. Yet the brain is not alone concerned in intellectual labour. Physiologically the most striking fact in connexion with thought and emotion *is their effect on the circulation.* The most casual thought, the vaguest emotion sends a red tide flowing to the brain. How much greater is the tidal flow of blood to the same organ when we engage in serious mental labour. The effort we make in studying is an effort of the

whole organism. The muscles are involved; but, above all, we have to acknowledge the activity of the blood setting in a swift river towards the cerebral centres, where the great movements are taking place to which we give the name of *thought*. Is this river pure? Does it carry away swiftly all the perilous stuff which the active nerve cells are continually throwing off, or does it bring poisonous substances on its own quick tide? If all the activities are equal and balance, the body is pure—there is no weariness. But the movements are not long balanced. The brain—the Royal Organ—makes demands which cannot long be met. Therefore though other organs never rest—for the heart beats and the lungs etc. function, without pause, during 70 and 80 years—the brain *sleeps*. Not wholly indeed—yet it sleeps, becomes pale, shrunken, anæmic every night—swelling and flushing it is true in the vague, eddying life of visions and dreams. Sometimes the higher faculties appear to be exercised, as when the sleeper composes a poem or solves a problem. But as sleep deepens, such activity ceases: what appeared to be Will, Memory, Attention fail: all consciousness dies away like a light on a deserted shore . . . .

During the first years of life the brain grows rapidly. A growing organ has little power of resistance. The infant human brain has in particular little resisting

power. For it is dependent on other members which it is apt to outrun.

So the infant cannot keep awake long. He sleeps during twenty or twenty-two hours in the twenty-four.

How long should a child sleep? It is not possible to lay down hard and fast rules. But, roughly speaking, children between the ages of one and two years need from 18 to 16 hours of sleep out of the 24: between two and three years, 16 to 15: between three and four, 15 to 14: between four and six years, 15 to 12; between six and nine years, 12 to 10: and between 10 to 13, from ten to nine hours.

Let it be repeated (for it may well be the refrain of any article on weariness)—fatigue is the result of impurity, and impurity the result of sluggishness, or *inability* of the cleansing agents in the body to remove at a sufficiently rapid rate the waste products. So it is of no use to send a child to bed in a room where air is foul. The cleansing processes of sleep cannot be carried on in such an environment! *

Sometimes a teacher, looking round on her class of weary-eyed children, closes the book and sends them out to play. Or she may open the windows wide,

* A great many of the poorer children in every city come to school in the morning looking weary, and heavy-eyed. These have probably been sleeping in impure air—wasting their time all night!

and give them a short breathing drill—and lo! all symptoms of fatigue have vanished. Eyes are bright again. The friend in the pure air has attacked the enemy in the tissues and overcome him. The lesson may go on apace.

It is not through inertia, nor stagnation that even a little child can find rest. Half and more than half the task of the true teacher is to quicken the child's *power of response.* The defective child is usually the child of slow re-action; the bright child is the child of swift response. It is in the training of the senses, and in increasing through such training the speed of re-action to external stimuli that the modern teacher has won all his greatest triumphs. In a few school-rooms the teacher actually keeps an instrument where-with to measure the speed of the nerve-current—and the progress of his pupils! For the scientist loves to measure. Long ago people were not nearly so deliberate, and yet they appear to have been well aware that feeling and movement are a kind of journey. They felt, too, that the ingoing and outgoing message was hindered —that the roads were blocked. "How am I straightened!" cried the man of Action, seeking outlet or expression. "Ye gates be lifted up," cried the Poet, seeking the tide of in-coming life. "And be ye lifted up ye everlasting doors, that the King of glory may come in."

And what, after all, is the use of a lesson that is not a deliverance?—All the best efforts of the intelligent primary teacher are directed with a view to the development of the powers of reception or response. The object lesson is designed for this. The Drawing lesson—the Music lesson—even the Reading or Writing lesson, properly understood, are ways by which one begins to receive and restore more freely. If we want to look to-day for the children and students who do not suffer from over-pressure we have to go to the schools where *children and students are very active*—where the teachers do not trust to books, but encourage their pupils to make expeditions, to observe, to experiment, to use their hands and eyes freely—in short where the pupils receive impressions, and act on them continually.

After all, little children are human. What is good and necessary for the health of a Shakespeare or a Newton is good also for *them*. Mental work is one condition of health for every creature possessed of a brain. And in spite of all complaints about over-pressure, it is certain that even children can do a great deal of it without being any the worse, but rather the better. In this, as in other matters, demand ensures supply.

"But if exercise is so necessary, surely our children

should be strong," cries a mother, holding out despairingly a sheaf of examination papers. "See! My daughters are busy from dawn till night—and in their sleep they talk of dates and tributaries and problems—and the little ones, too, have little enough rest!"

Yes, but it is possible that the daughters and the little ones are not very busy after all! Indeed one has only to look at the examination papers of older pupils to see that the students must be *unoccupied.* Wonderfully unoccupied. O the dates, and the sums, and the problems, and the grammar! They have to learn so much. They can *do nothing but learn mechanically*: learn by heart. And that is not much. That is, after all, *so little*! The human mind is an *ensemble* of faculties. There is the Imagination, the Judgment, the Will etc. etc. While all these are exercised fatigue is kept at bay: in the general movement consciousness is enlarged, and the close ramparts of sleep and death are pressed back. But in the work done for the modern examinations much of this activity is *prevented.* The higher faculties lie dormant while the student crams. He never feels the excitation that accompanies the exercise of all the faculties, never feels his pulse beat high, nor his heart throb, nor his spirits rise in any effort. And this is partly, if not altogether, why he becomes the victim of over-pressure.

Forty years ago people were much struck by Fröbel's new teaching. "The normal child is active, not inactive: direct his activities." To-day the psychologist says to us, "The normal child is attentive, not inattentive"—only you must find out what he can attend to. And when you have discovered that, you will discover that he is strangely insusceptible to fatigue. If the thing he attends to is a useful thing, then his future as well as his present life is blessed. He may resume his work—the same work—every day for months, for years. In that case he may be a man of genius. But it is much more likely that he will change his pursuits—be fickle, show the normal boy's will—devoting himself first to one pursuit and then to another. But in either case he will not suffer from over-pressure.

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The solicitous mother is not the only person in the world who is afraid of over-activity—quite unnecessarily. "When I am rich I will do nothing but enjoy myself," thinks the young man toiling and starving in his garret under the leads. He has a hard struggle—borrows money, toils, dreams, and sleeps very well at night. Later, when he has succeeded, he is not nearly so cheerful. He is conscious of an awful cessation—a hideous pause in his life. He has no care for the morrow, but all the joy has gone out of to-day.

The Jews are a persecuted race. Every nation reviled them, hated them, burned them—and accepted their ideas and their literature with joy and devotion. They suffered terrible privations, and nothing is so remarkable as their success. And no one takes their joy from them, or even envies it—for no one but themselves can possess it. And what is most remarkable of all—they can *rest* anywhere, (not in cold immobility, but in quiet breathing tranquillity) on mattress-graves, or Ghettos, in old clo'shops or by the side of thrones. Moreover—and this is a thing worth noting—the percentage of defective children among Jews is smaller than among Christians.

So the afflicted, tossed with tempest, are comforted, and great is the peace of their children. The great thinker and worker flourishes like a grand, healthy tree in the midst of a sickly vegetation. The alien nation fights, suffers, rests, and rules—in peace. Just as the light—which travels so fast escapes every impurity, so they, living intensely and strenuously, escape fatigue and disease.

But the valiant worker, the valiant nation alike suggest one question. "What is over-pressure?" This pale crowd of anæmic students, those children with weary eyes and trembling hands: why are they as they are? Is it true that they work too hard—or

that, engaged only in formal and mechanical studies, they are not working at all? Surely they are not *all* working hard? Over-activity is not common—and its results are not very serious. But inertia within—stagnation without (even were it the stagnation of air) are another matter! No. The workman who can only watch a machine, the rich man who need not earn his living, the woman who has no caprice unsatisfied, the child who has no time for play—these are not hard workers!—these are all defrauded of the battle of life, and of the strength and repose that comes only in struggle.

Is even sleep a cessation of activity? Only the deepest sleep—and above all the sleep of the undeveloped brain—is dreamless. "Ah! I do not know what I should do," cried a mill-worker the other day, "if I never dreamed. I go to work, you see, every morning at six, and I am at the loom till dark. My lodgings are comfortless and always empty—but at night I dream." Many years ago this woman had a vivid dream which still gives her pleasure. She thought she was in Italy. The sun was setting and a bright glow irradiated everything. In the wide field where she stood the grass-blades shone, and far away the plain stretched, dotted here and there with flowering shrubs. Overhead the light rolled up in a

gigantic arch, westward the sky was like a sea of amethyst. Often on chill mornings, when the rain falls, and the streets are dark, this mill-worker, shivering in her poor clothing as she hurries along the muddy pavement, remembers that radiant sky and plain, and is comforted, She warms herself at this remembrance as though it were a fire. Something of the light of that throbbing dream atmosphere enters her heart. It was only a dream—but a helpful dream.

Sleep is change. Those regions of the brain which have been taxed rest (or ought to rest if sleep is healthy) at night. We do not dream of the friend we have lost, or if we dream we forget that he is dead. We do not consciously attend to anything, and we feel little surprise at events which in a waking state would seem impossible. The field of consciousness is invaded by a flood of images and associations—neglected regions of the brain wake into a kind of activity. Thus the poor, the enslaved, the over-pressed, the sorrowing find liberty, not in the cessation of all life, but in the new life and movement of sleep.

"But as sleep deepens consciousness fades."

It is true. But even then sleep is not mere lethargy. Far otherwise. Just as, in the tropical forest, a new life wakens when the birds and beasts that love the

sunshine go to sleep, so a new life wakens every night in the tired body. The day's life is over. The body, polluted by the waste accumulated in the strife of conscious life, lies motionless.

Consciousness is banished through the intoxicating effects of the fatigue poison. Eyes are closed.

And *now* the ministers of purity awake! *Now* the poisonous substance is dissolved and washed from the hidden parts. The cells are built anew. Sore Nature receives her wonderful bath. Swiftly that inward cleansing goes forward. Yet Nature will not be interrupted. If a man sleeps eight hours, and is roused every hour, he will be unrefreshed in the morning. His rest has been a series of beginnings—no more; sleep is a time of great activity that does not brook interruptions. It is an inner realm of the world of movement which we call Life. We are insensible to so many movements. They are too rapid, too well balanced and harmonious to awaken our dull senses. Only the *result* of them is a gift every morning—and safety every hour. Where sleep is sufficiently long, and unhindered by impurity of environment, the sleeper rises to his labours a renewed man. The temptations and troubles of yesterday have disappeared. Above them rolls the tidal flow of his energy. The inward bath has made all things new.

The little child too, wakes from such sleep, with all his faculties alert. There is, indeed, no transition in his waking. He opens his eyes, and springs at one bound from the world of dreams. And nothing is so fresh as this young life which has breathed pure air all night in the shadow of the purifying angels of sleep. He has the freshness of flowers washed in sunlight and also in dewy darkness. Looking at him, we gain some hint of the activity and even strenuousness that underlie all renewal and retrieval. "The peace that passeth understanding" is not the product of inertia—but of motions "unwearied as the heavens." Even the gaiety of the newly awakened child has behind it a succession of activities—the throb of unpausing life. "*So* He giveth his beloved sleep."

CHAPTER XI.

FORECAST AND RETROSPECT.

It has become almost a fashion to decry civilization. The savage—woad-stained or tattooed, unencumbered, free, roaming about his native forests, killing, eating, and unconscious of sin—takes a powerful hold on the imagination. We picture him strong and free, and we are disposed to envy him.

And yet nothing is more deceptive than that simple, obvious strength of the savage, except, perhaps, the obvious pallor and frailness of the modern City clerk. Let pallid clerk and splendid savage be exposed to the influences of infectious disease. The microbe or bacillus will find an easy prey in the savage, though he has led a free life, and breathed pure air daily and nightly in a virgin forest. But the pale modern is not so easily overpowered. He will wrestle with the new enemy, and perhaps defy him utterly—thanks to the possession of a rich vitality accumulated by generations of thinking ancestors.

It is in times of sudden disaster—such, for example,

as shipwreck—that the superior strength and power of endurance of the civilized man or woman declares itself. It is not the delicate, cultured lady, but the simple coloured woman, who throws herself into the sea in a panic. The savage swoons when there is no hope, and resigns hope quickly; the uncultivated white man holds out for a longer time; the highly-developed civilized man or woman shows marvellous tenacity and endurance, as is amply testified by the annals of innumerable shipwrecks.

It would appear, indeed, that courage, patience, muscular strength, mental ability are *the results of accumulation.* Just as every sensation is, in the last analysis, a certain order of movement, so every faculty must be regarded as a manifestation of force. Where energy is not allowed to accumulate, there must be sudden deficits. "For emergencies, squalls, etc.," writes a great admirer of higher types of savages, "they are nowhere." That is to say, they have nothing. How can they have anything? The primitive will of the man who walks so bravely in the swamps and jungles is discharged continually in explosive actions. The emotions and feelings have free and rapid course. He is, to use the expression of a French writer, *a bad accumulator.*

On the other hand, the average civilized man is, as

compared with the savage, a *good accumulator*. And the energy which he accumulates is manifested, not in one way only, but in various ways. He is adaptable —can turn his strength into one channel or another. For example, the well-educated scion of a noble house goes out to the colonies, and becomes a navvy. Though he has never done any hard work in his life, he has a greater force and endurance than his less fortunate work-mates. Is this because of his superior training? It is more correct to say that it is because he has a reserve fund which they have not. He has a large capital of force; and this force is *transferable*. It once showed itself in his ability to pass examinations and shoot birds. It manifests itself now as a power to do the work and endure the life of a navvy. To take another example: look at the delicate but intelligent nurse at the seat of war. She performs heavy and strenuous labour from which a less cultivated woman would shrink. But how can she do this? There is only one answer possible. She can do it because she is stronger than the ignorant woman. This strength is often called moral, or mental. Yet it is manifested now as muscular!

Such illustrations as these, striking as they are, may not, however, be accepted as evidence of the close relation, and even identity, of muscular and what is

known as moral and mental energy. We are not destitute of other evidence, however, than that of common observation and experience. Many scientists have made experiments which have served to show that *the energy of momentary effort is in close relation with the exercise of intellectual functions.* Among these is Broca, the brilliant neurologist, who anticipated and prepared the way for so many discoveries in modern psychology. Broca made a series of experiments in order to test the muscular power of persons belonging to different social grades. The tests were applied to the hand. Regnier's dynamometer was used. The results were very conclusive. It was found that the grip of the average manual labourer was inferior to that of the artist—that persons belonging to what are called "the liberal professions" could exercise a much greater amount of force than the class below them, and that the cultivated woman (whose hand appeared in many cases to be enfeebled through lack of exercise) had more digital energy at her disposal than the woman of the working class.

The tendency of the primitive man to dissipate his energy rapidly is not easily overcome. Intellectual development is slow. It is hastened or postponed by outside influences or agencies; and no one can doubt that, at one period of our history at least, the mental

development of England was marvellously hastened through the agency and influence, not merely of religious teaching, but of religious rites. The Church supplied (because she possessed) a powerful emotional stimulus. But this was not enough. She had not merely to arouse and arrest, she had to arouse and arrest *daily*, the prodigal, savage life of her children. She had to sustain during a long period that strange life in which so many potentialities lay—where so much faculty struggled which would one day shine resplendent in a Shakespeare, a Milton, a Cromwell, a Nelson, or a Florence Nightingale.

In short, the Church had to educate her children (not merely to instruct them). And she began this work in the only way in which it can be begun—or even continued; that is to say, by powerful appeals to the senses. Through the beauty of her places of worship, through gorgeous vestments and glittering altars, through incense and the voices of choristers, she assailed every worshipper. No sense was slighted; each was stimulated. And in this whirlwind of appeal, besieged on every side by quickening vibration, the people awoke to new life. They came together not to judge of the value of doctrine or dogma, but to attain a fuller consciousness, to accept new stimuli, to feel the torrents of life pour inward freely to those

nervous centres where mechanical vibrations are transformed into impressions, impressions into desire, desire into aspiration, aspiration into that renewed will through which new effort becomes possible.

But, as it was obvious that the vitality may be enhanced through impressions only to express itself in unprofitable or harmful ways, the Church cast a jealous and, indeed, a forbidding eye on every stimulating influence without her own walls and jurisdiction. She, using the stimulus of sound, condemned profane music. While multiplying her gorgeous vestments and glittering adornments, she preached against the vanity and pomps of the world, the flesh, and the devil. She caused the tide of life to swell in the sanctuary; but she loved to behold it ebb in other places where strength (through sensation) would mean only temptation.

Nevertheless, such strenuous appeals to every organ of sense could not fail to produce powerful effects even on the most sluggish. For the excitation of any sense determines a new functional activity of the whole body. Of course, the effect of such excitation is at first most apparent in the organ which is specially appealed to, and this effect is often remarkable enough. For example, here is an hysterical woman whose sight is abnormal. With the left eye she can see only one

colour—red; that is to say, the colour which is the most stimulating of all. With the right eye she can discern every colour except violet—which is the least stimulating colour—the colour whose various shades are discerned last of all. Now, this woman is exposed during some minutes to a red light; it is then found that she can discern violet very well with the right eye, and that the sensibility of the left eye also is much increased. To take another example, here is a woman who is apparently quite deaf. She goes into a mill where she is exposed to the roar of machinery, the clatter of innumerable looms; there it becomes possible for her to communicate with her neighbour. When the machinery stops she is again stone deaf.

New power was acquired by those two women through stimuli. And the effect of the stimulus offered by the red light or the roaring machinery was by no means confined to one sense. Every muscle, nerve, sense, and member shared in the new accession of energy. The deaf woman was able to converse in the factory, but this was not altogether due to the fact that the organ of hearing was stimulated. Doubtless the sense of vision, too, was rendered more acute, so that she was able in some measure to read the movements of her companion's lips. And both she and the woman of defective sight profited *intellectually* by

the stimuli supplied to the sense organs, since every stimulus which is prolonged (that is to say, is more than momentary) increases the psychic power in raising the general sensibility.

Now, if such be the results of a single stimulus on a defective person, it is reasonable to suppose that a series of well-chosen stimuli might greatly enhance the vitality and power of normally endowed persons. In church the people had real, not fictitious, glimpses of a higher life. To be sure, such glimpses were brief. The moment when human energy is at its maximum is the moment that precedes decline. But the effects of temporary reinforcement are not always temporary. Even the coldest moralist will sometimes admit that he gained the power to work through long years in one brief, bright moment of insight. The Church provided for the life of moments, and selected the stimuli by which this life was intensified. And in doing this she provided conditions necessary for the growth and blossoming of human faculties.

And so the period of great art and craftsmanship followed close on the period of religious revival. There was first of all fervour of love and wonder and adoration, and then the desire to embody all this in work. And not only in work, but, since the tide of life swelled every day, to embody it in *daily* work. Returned from

the sanctuary, where the vitality had been raised and every sense stimulated, the artizan found a theatre where the last act of this great life drama must be played out. The hand of the wood-carver was now instinct with new life, which seemed to flow into the sweet-grained wood as he worked. The weaver, the mason, the iron-worker, every labourer, whatever his calling, had to embody what he felt for the same reason that an over-filled vessel must overflow. So close was the connection between reception and realization, so manifest was it that both represented only one movement, that the old monks did not even distinguish them. "Work," said they, "is worship."

Well, through this life of alternative refreshment and work the people were educated. Just as a wild flower grows large and brilliant in a garden, so the primitive man became a more luxuriant and resplendent being under the stimulating and nurturing influences provided by the Church. In the rites of his religion, let it be said once again, man was allowed to drink in a new energy, and was swept forward into a new consciousness. So that at last he grew strong enough to be critical as well as receptive, and keen enough to discern impurities in the very garden that had nourished him. The warm myths that had lain so close about the roots of his unripe nature, the starry legends that had

rained their pure influences on him in his cradle, even the sweetness of music and the loveliness of the temple in which he worshipped, appeared to him no longer as helpful and holy things.

The senses! There was something beyond the senses. Beyond—beyond there was a wider region of truth. He despised the avenues through which he had become enriched. In the ferment and growth of nascent and vigorous life—life rich in possessions, and yet richer in promise—he looked no longer for guides, but for weapons; he sought no more for religious teachers, but for artificial aids. He hailed with joy the new invention of printing, which would lighten the burdens imposed on memory and keep the record of thronging thoughts. Not for the privileged few alone, but for all the people, this new weapon was a necessity. The Church claimed it, but her children disputed her right to it. What! She alone must print, and say whether books should live or die? But the need of expression was theirs. *They* wanted to speak at last, to debate, to record, to remember.

Thus the people, in the hey-day of national youth. And they prevailed. For theirs was no longer the explosive strength of the savage, but the jubilant valour of youth. And the greatest man of that great age—an old, blind man—rejoiced with them, and defended them.

"Methinks I see in my mind a noble and puissant nation rousing herself like a strong man after sleep and shaking her invincible locks. Methinks I see her as an eagle missing her mighty youth and kindling her undazzled eyes at the full, mid-day beam, purging and unscaling her long-abused sight at the fountain itself of heavenly radiance."

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The present century has been one of extraordinary and rapid change. The most remarkable of all is, of course, the industrial one—caused by the introduction of machinery. Unprecedented in the annals of history is this First Revolution. For hundreds, indeed thousands of years, civilized nations used much the same kind of saws, looms, planes, picks, hammers, etc., and now within a few years all was changed. The old instruments, the old methods, disappeared. Large numbers of workpeople of both sexes crowded into the large factories. Home as well as workshop was transformed.

But another change has taken place— a change that affects a still more dependent person than the workman or his wife. In 1870 the Education was inaugurated which has revolutionized the life of the child.

The Second Revolution was doubtless hastened by the first. The condition of the children in the large

industrial centres began while the factory system was still very young to inspire alarm. The children went to work at the age of six or seven—or even earlier. They had no home life or education. And, as they could not read, ignorance of the alphabet began to be associated with alarming degeneracy, and obvious arrest of mental development. It was thought, and very rightly, by many that these poor little children were being defrauded of their human birthright—so stupefied were they, through hard labour and neglect. Public opinion on this subject was strong enough to hasten the action of the Government in attempting to find a remedy for such a condition of things. In 1870 the Education Bill was passed. Schools were built rapidly; teachers engaged. In short the second great revolutionary change of the century was inaugurated.

In order to understand the condition of many of the children that gathered into the schools we must first consider the life of their parents. It was, to begin with, a life of great monotony. For ten hours per day the father (and also, perhaps, the mother) performed the same restricted and mechanical action. The average brainworker—that is to say, the average member of the class which decides the kind of education and legislation that is advisable for the

working child and man—has often little enough notion *how* mechanical the wage-earner's task was—and is! Here is a man who has to perform one fractional part of the work of getting warp ready for the loom. The whole burden of his task falls on the forefinger and thumb of one hand. The action is mechanical. And it is repeated during long hours without halt. Sometimes the worker turns his seat round and uses the other hand, and this is the only change possible for him. Yet, though all the strain is thrown on one small member, and on one isolated area of the brain, the whole body seems to participate in this activity. The arm, even the trunk, trembles as the finger is advanced again and again with the regularity of a steel bar or piston. The room is, perhaps, well-lighted and airy, people may come and go, but the toiler cannot raise his head, or take any notice of what is passing around him. This is a solitary case, yet it is a typical one. In the weaving and spinning shed the workers seem to be a part of the machinery. The great iron fingers that rise and fall in regular order, the wooden arm at the side of the loom, that strikes with rhythmic energy, even the restless wheels themselves hardly work more mechanically and continuously than the human eyes and hands that watch and tend them. Of course, this applies directly only

to weavers and spinners. But a little consideration will convince anyone that not only spinners and weavers, but all classes of wage-earners—button-makers, founders, potters, carmen—have to earn their living by performing one restricted action over and over again.

In former days, before the machine or the machine-minder had come into existence, the life of a man was not destitute of incident. Yet the Church was careful to star it with intervals of change and rest. Her pilgrimages, her festivals, her holy days, were blessed interruptions. They were necessary interruptions. But the Church has not grappled very successfully with the problems of latter-day industrial life. The people are left to themselves. They rebel against the monotony of their life—and violently.

Drink is common among men and women in the large industrial centres. Betting, too, is common, not merely among men and women, but among children. The Lancashire "hands" consumed within recent years an immense amount of opium. They enjoy even wholesome pleasures with abandonment. In Yorkshire and Lancashire thousands of families work hard all the year with the full intention of spending every penny of their hard-won earnings during the annual fortnight's holiday at the seaside. From the long

year's monotonous labour there is no escape; but there is an hour of life at the end of it. *That* must be tasted at any cost.

"What folly! what want of prudence and self-control!" says the shallow moralist. "Their great great-grandfathers did not thirst for change and excitement." No. Their great great-grandfathers were not machine minders. And the people are right, after all—if a re-action may be spoken of as "right" or "wrong." For monotony is the arch-enemy of human life and progress. Wherever it reigns progress is checked, and all recent and higher achievements imperilled. It is *solitary confinement* which completes the degradation of the criminal. The Institution child does not develop. In spite of good food and regular exercise, he is destroyed by the monotony of Institution life. The mill-hand is free during a short period every day, and he is not reconciled to monotony. He thirsts for excitement, and is willing to pay almost any price for it. But in this strong desire for change we see, not the working of the old Adam, but the instinct of self-preservation—an instinct which safeguards, in some degree, the most precious fruits of human evolution.

Alas! these precious fruits are in jeopardy nonetheless. The mill workers have changed front rapidly

on many questions during the present century, and some of these changes are sadly suggestive.

They revolted *at first against the very idea of their children going to work in a factory*. Then suddenly they became resigned, and, later still, desirous that the little ones should labour. They sent their little ones of six and seven to work for twelve hours per day. Parental love, which is, according to Herbert Spencer, the most powerful instinct of all, became suddenly weakened. What influence was it that thus quickly destroyed in those English people the most sacred feelings of pity and affection? There is little doubt that the moral blight was brought about through *monotony*—that monotony against which the people themselves were rebelling in desperate enough fashion.

The schools were opened at last in great haste, and—we may be allowed to say it now—in great ignorance. They were opened, not for the children of Northern England alone, but for English children. But what was true of the factory child was true, in some measure, of the bulk of those who now began to throng the benches of the elementary schools. For not one section alone of the working people, but *all*, had experienced, more or less, the far-reaching effects of the industrial revolution; all had felt them, not merely in the external ordering of their lives, but in

a new dearth of inner experience, which threatened, and indeed arrested, all the processes of natural education. O restless wheels! what a poor substitute were you for the thrilling vibrations which once awakened the young, and even stirred the old. O books!—for which the children had no use—how could you take the place of words from loved and living lips? Not to read—that were a small matter; but to have no life, no thoughts—there was the tragedy. Where were the warm bright myths, the starry tales, the loving glances, the sweet sounds and gorgeous spectacles that once roused even the sluggish? The world was full of machinery and free thought (though in many places there was little enough thought of any kind to be enslaved). And the children stood cold and torpid, unthrilled by any life-giving vibrations.

It is plain that such children were in need, not of instruction, but of nourishment. Granting, as we must, that a perfect substitute for parental love and faith and intercourse cannot be supplied in any school, it was, nevertheless, the plain duty of those responsible for primary education to supply, in some measure, the food on which the human mind grows, and the stimuli through which it is awakened.

"That is impossible!" cries the bigot. "The emo-

tional stimulus of our fathers was a religious one; and we are split into quarrelling sects. The power that initiates all progress had departed."

Happily the initiating power is never banished. Or, in any case, nothing is so remarkable as the swiftness of its return. It re-appears in every unselfish thought, in every devoted life. And it scorns no simple means. Sects quarrel, but flowers still grow by the wayside, and even in dingy windows; wild birds and tame creatures still make their mute appeal. Pure and brilliant colours, music and sweet human speech, lovely forms, had not been banished through the triumph of one sect or the failure of another. And, moreover, there were still living men and women in the world to gather the food through which the children of the people might be nourished.

Unfortunately, though the condition and circumstances of thousands of children suggested that supplies had been cut short, so that mental nurture, once general, was now exceptional, the schools did not become nursing-homes. People did not even know that nursing-homes were necessary. It has been remarked that the children, condemned to work, and deprived of all which goes to make a rich *sub*-soil out of which the mental and moral life may grow, were stunted and stupefied. The average observer

noted the stupidity. He also remarked the fact that the stupefied child did not know how to read. So he, encouraged by some great writers, at once declared that to teach reading was the first duty of the State. Now it is not very difficult to teach reading, nor even to see that it is done properly. And John Smith wanted to see that it was done properly, because he had to pay for it. "I am to pay," said John, "for having the three R's taught, and how am I to know if I get value for my money?" This question appeared such a very pertinent one that everybody began to think about it at once. And at last something which promised to be a solution was arrived at, for Mr. Lowe brought forward his great suggestion of payment by results. It was a very simple suggestion indeed, and commended itself, therefore, to the practical English mind. The teacher was to make it possible for the children to do certain things, and his payment was to be according to his success. The inspector was, of course, the judge, or, rather, the valuer. He was to go round examining children in the three R's (for these were the test subjects) and assessing grants; and in this way John Smith, senior, was to have some guarantee that he did not spend his School Board rate money without getting an equivalent.

Well, the children began to learn, and the teachers to grind. To teach the three R's, that was the question. In every school the thing was done, in one fashion or another. The bright and dull, the whole and the sickly, the elder and younger—all learned to read, to write, to cipher. They learned other things, too, mostly by heart; and on examination days, marshalled before the judge and valuer, they exploded all they knew, like unbottled jars in the class-room, the teacher looking on the while, and listening with anxious heart. Read? Certainly they could read! Also write, spell, sum, and remember. Many a teacher pocketed large sums, and years passed before John Smith, senior, began to have even the dimmest suspicion that he was not, after all, getting full value for his money. Nevertheless, this discouraging fact became at last only too apparent. Many children went through the ordeal of learning to read, and then leaving school, speedily forgot all about the matter! They had no need for such an artificial aid. The desire to know or communicate with a larger life had never been born in them at all. And as their learning had no roots; it soon withered away. Doubtless such children were exceptionally dull and unfortunate; yet that "the results" of school-going should be these for any child proves that great ignorance of

the children's actual condition and needs must have prevailed.

Poor John Smith! His mistake consisted in this, that from the first he looked upon the children as *producers;* and yet the most striking fact about the children was that they *were bankrupt;* they were not in a position to produce anything at all!

As time went on John Smith, senior, began to feel that "the results" were not, after all, of much value. It was not necessary for doctors and statisticians to warn him; he knew already, in some more or less vague way, that "schooling" was not such a wonderful thing as some had imagined. It is necessary, of course, to be even with foreigners. One must hold one's own in the industrial markets; but, in spite of these considerations (which have great weight with him), he is not anxious to prolong his children's school life.

And now, in this winter of John's discontent, the signs of a new spring-time of educational work have come. It is true that these signs arrive tardily, and have much ado to appear at all! For the large classes, the tradition, and even the present necessity of mechanical methods, the "requirements" of various bodies—all hamper the teacher who desires change. Yet, here and there, methods *are* changed, and the

aim is a new one. The first difficulty is the great size of the classes.

The most experienced and fully equipped teachers declare that when a class out-numbers twenty-five the quality, and even the *nature* of the teaching must change. The pupils can no longer be dealt with as individuals, and come into close personal relations with the teacher. Thus vital education is impossible. But in the elementary school classes of fifty, sixty, and even seventy are not uncommon. The teacher keeps order, and gives a certain amount of instruction. But she cannot aspire to do the *best*. On the contrary she must turn away from the *best*, and devote herself to becoming an expert in a spurious art—viz., the ant of managing large classes.

In the second place, the teacher's own education has been a hurried one. And though in the cases of some, natural aptitude and ability overcome every hindrance, yet the evil effects of the scramble to pass examinations are only too obvious.

Lastly. A *variety* of discerning persons are wanted on educational bodies. Not persons who can merely acclaim obvious successes of which "grant" is the warrant, but who can discern nascent talent, and peculiar aptitudes, and protect and stimulate these. That is so say we need—not experts—but a leaven

of authoritative persons. A leaven of great geographers, scientists, artists, whose larger vision and fuller knowledge will overcome the rigidity, and overlook the barriers of mere officialism.

And here we strike against a wall. Will great men serve? "I have something else to do," said Napoleon, "than to think how children are to learn their A B C." And most great men have been since that day of his opinion. Of course there have been exceptions—notably among the scientists. Disciplined by long and strenuous labour, accustomed to dispense with applause, these have offered to the people, and especially to the teacher, the fruits of their long researches. A very few have not even disdained to stand for election on public bodies, though there is little evidence that the ratepayers appreciated the value of such proffered service.

But the artist stands aloof. The painter, writer, musician —all those, in short, who could most effectually breathe the breath of life into the dry bones of officialism and clothe and vivify the skeleton of learning have fled the polling-booth and committee-room. Their labours are arduous as those of the scientist, though of a very different order, and brook no interruption. Such is the fiat not merely of the artist himself, but of the public who patronize him.

For he *is* patronized by the public. Here lies the

great distinction between the artist and men of sterner calling. The greatest painter or novelist of this age has to live by earning the approval or admiration of the public. It was not ever thus; but it is thus now. And so, as Stevenson (himself a consummate artist) has pointed out, there is to-day an undeniable parallel between the greatest artist who paints what will sell, and the ballet-girl who dances to please instead of pleasing to dance. The artist may indeed render services whose value is out of all proportion to the wages he receives. Yes; but he receives wages which no one else receives—private and personal delights in the work itself. And these are mysteriously discounted, though the public hardly suspects their existence. The artist is "privileged". The artist is also patronized. It is as if the public knew he had not admitted everything even to himself—"At least," says Demos, feeling that his own lot is hard, and without compensation, "you must continue to please me. You are there on purpose."

So if to-morrow a great biologist or astronomer said, "I will go on a School Board, and spend some portion of my time in endeavouring to be of service to those who are engaged in teaching elementary science to John Smith," there would be no outcry raised, and the more intelligent rate-payers would

express some thankfulness. But if an artist volunteered the case would be different.

"What!" his public would say—"You are going to waste your time in thinking of little children and their daubs. But you will spoil your hand—your wonderful hand which gives us so much pleasure. Paint one great picture, throw yourself into your own work, but do not run the risk of falsifying your talent by touching agenda papers and coming under the influence of routine."

The artist is only too ready to listen to this warning. Indeed he hardly needs it. All the forces of his nature call and claim him for that magic task which is to him the source of endless trials and tests, but also of ineffable joys. True there have been artists who turned away in spite of murmurings. Ruskin put away his pencil and took up his pen in order to write "Unto this Last". And Tolstoi ceased from the creation of glowing romances in order that he might write on ethics and Religion. These were sharply reproved by their patrons. They were reproved even by their friends. The noble Tourgenieff wrote sorrowfully to Tolstoi, "Your great gift came from the source of all good gifts. Use it—and leave other things alone." Here indeed was a remonstrance which might well have made the most generous falter . . .

Tolstoi remained a social reformer rather than an artist. But how many could have withstood such pleading as this?

Moreover, the majority of artists, find in the searching discipline of their craft the justification of their whole life, the price of their success as well as of their joy; They hardly need the counsel of their patrons.

"Do not spoil your hands. Leave the rougher work to rougher men who are not obliged to please."

Yet to leave *all* the rougher work to the rougher men is to leave to them also the highest dignity, the noblest attributes of manhood. The average man possesses these. England expects every man to do his duty whether on a School Board or on the battle-field. And England is seldom disappointed. Having taken his seat on any administrative body, the average Englishman, often conscious of limitations, nevertheless quits himself bravely (as many a rural district can testify). The practical ability he possesses he uses in the public service. He manages all that comes within the scope of his business capacity, with great faithfulness, often with great wisdom and skill. And he does this fearlessly. "Put your trust in my shadow," said the bramble to the trees who asked him to be King over them. A right royal thing to say. And this is what many a rural manager says as he takes

his seat. Moreover, it is quite clear that honest, business-like men who have too much honour and disinterestedness to betray a spurious modesty *will always be indispensable.* But one is tempted to ask now and then, "Where in the name of what is highest in man are the olive and fig trees?"—and in answer there comes a murmur from distant and mysterious places :

"Shall I leave my fatness?... Shall I leave my wine which cheereth God and man and come to reign over you?"

Yes, certainly they ought to leave their fatness and their wine and come and reign over us. It is true that great art—or expression, can spring only out of true life—that mere counsel even from an artist will never enable us to feel, much less to express any noble thing. But the spirit that urges the most gifted to keep in close and helpful touch with the lowliest *is* the spirit which is the source of all lovely and sublime expression. Moved by it, and living in obedience to it no one can lose his highest powers. Long ago in Italy the greatest artists received children into their homes, and taught them with such devotion that the pupil was named not by his father's name, but by his teacher's. No one would think of apprenticing children to great artists now in the way children were once apprenticed

to the masters. One would as soon think of drawing beautiful things on one's kitchen utensils,—that too was a custom long ago. No. Art and pedagogy have fled too far apart. But some indirect guidance and surveillance of elementary education by those best fitted to suggest and inspire we have a right to expect, if, indeed, the spirit of which all beautiful expression is but the shadow still lives and disputes in the artist-soul the too absolute supremacy of the patronizing public.

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Meantime in spite of difficulties—large classes, scrambling preparation for examinations, comparative dearth of sympathy, comparative banishment from the higher sources of culture and counsel, and (worst of all) utter indifference and even opposition in many cases on the part of parents—the elementary teacher must go forward.

Every child comes into the world poor—so poor that he has no appetites. He does not thirst at first even for his natural sustenance. He accepts it, then he grows by it; and, at last, demands it ravenously. The child of the "hand," who has no time to make spontaneous offerings, *remains* very poor indeed. Slowly, now, we begin to perceive that the office of the primary teacher, as of the mother, is to offer good nourishment, and to *create a desire for it.*

Yes, to offer food—that is the first duty of all helpers. The child has to accept; afterwards, the results of his acceptance will proclaim themselves; and, indeed, cannot be prevented from doing so. No one can foretell them very accurately, nor can the teachers ever be exempt from the chance of exquisite surprises. Hundreds of years ago men wondered at the thoughts that arose in their own hearts. They marvelled, too, at the work of their brothers, and we are still marvelling at it, and wondering why we cannot do anything like it. But the well-nourished child also astonishes his teacher, not by clever feats, or mere prowess in spelling, but by the use he makes of all that he receives.

Not that we can learn much about him from his achievements. A child is the one creature in the world from whom one cannot get finished results —that is to say, results which mean what they appear to mean and nothing more. His needs and desires are a great deal more significant than his powers. And the successful primary teacher of the future will be she who sends out, not youthful prodigies, but children who love beauty, who desire knowledge, who need fellowship, who thirst for innocent pleasure; who, in short, make *demands*.

"They will go forth," you cry. Yes; but to what kind of life? Many of them, perhaps the majority,

will be engaged in mechanical labour to their lives' end—the labour that gives the worker few opportunities and no choice. Already we know what that life is. Once set in motion, the iron fingers and arms will do all that is necessary. There is little need of skill. But whirling fans and cylinders accept no excuses, so obedience and watchfulness are terribly enforced; and any higher kind of morality is at a discount. Is it possible that the human faculties and desires, whose growth we have watched in the children with joy, can find any field or expression in such a life? Is it not better to let the children sleep than to waken them? They will adapt themselves to their world at last. But why should we make them desire to live in another?

The answer to this is: that we must reverence life and trust in it, even in an age of steel and machinery. If to-day machinery seems to have made the life of many laborious and barren, that is only because the life in them is not strong enough to triumph in spite of machinery. Wherever it comes Life transforms. Our land was once a wilderness. It was changed by human hands into a garden. The human Builder reared temples whose ruins are eloquent. He filled the waste with silent music.

That was long ago, and *that* wilderness was God's.

We have now a wilderness of man's invention, a wilderness which is in itself a human triumph; and mechanical labour must be done in this world of steel and iron. Yes; that is one necessity. But one day it may be necessary that a larger portion of the life of every man and woman may be rescued from such labour; and this second necessity—the fruit of a more natural and vital education—will be as rigorous as the other and as persistent. Society will have to take account of it, as of a thing from which it cannot escape. "This wilderness of wheels and pulleys must exist; but it must *not* overshadow us, empty our homes, submerge our lives, hinder our development." Such a fiat will inevitably go forth if the primary school once fairly begins to nourish the life in its children.

For this life will find expression and make laws, destroying the old impediments by its own vigorous growth. The old does not belong to it, but must be sloughed off. Where the past generation stood sad and helpless it may arrive peaceful, because invincible. Unabashed by the mechanisms of man's own invention, the people may draw together in the bonds of a new fellowship; the homes that were once solitary may be glad, and the man-made wilderness itself rejoice at last and blossom as the rose!

"The Children How to study them"
Dr. Frances Warner